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The Electragist

Trade Mark Reg. U. S. Pat. Office.

Vol. 24, No. 3

Official Journal of ASSOCIATION OF ELECTRAGISTS—International.

JANUARY, 1924

New

RED
SPOT

Wakefield porcelain enamel kitchen unit

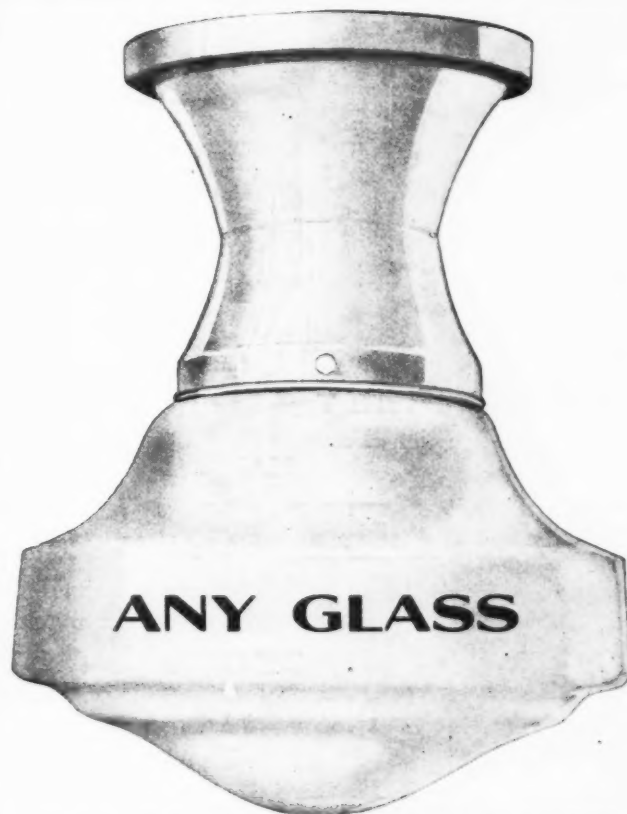
RED
SPOT

"RED SPOT" was the *original*
Kitchen Lighting Unit.

It has always been the *best*
Kitchen Lighting Unit.

And now we offer a porcelain
enamel "RED SPOT" with
unique structural features
which set an entirely *new*
standard.

Samples of this unit are al-
ready in the hands of over
100 Jobbers of Wakefield ma-
terial. Ask to see it. It looks
better than the picture, and
—the price is *right*.



ANY GLASS

"Red Spot" Porcelain Enamel Kitchen Unit No. 1171

The
**F. W. Wakefield
Brass Company**

125 Walnut Street :: Vermilion, Ohio

Pacific Coast Representatives:
GEO. A. GRAY COMPANY
Los Angeles and San Francisco

"Ring and Talk—Don't Walk"



Lamp-Type "Intertalk" Telephone Switchboard System



Pattern No. 1172

RECOMMENDED FOR
Banks, Commercial Institutions, Schools, Hospitals,
Factories and High-class Apartment Houses where
service is desired between Switchboard and Sub or
Outlying Stations.



Pattern No. 2530



Pattern No. 237



Pattern No. 385



Pattern No. 190



Pattern No. 2640



Pattern No. 2524

Table Type Lamp Signal Switchboard

MANUFACTURED BY
STANLEY & PATTERSON

INCORPORATED
GENERAL OFFICES AND FACTORY
250 WEST ST.
NEW YORK, U. S. A.
Send for De Veau Catalog No. 40



"Here's a *real* cord, Ed"

"IT'S the toughest cord I ever saw. Why only yesterday, Joe came along with the five ton truck and ran right over it. Never hurt it a bit."

You can do that with "U. S." Royal Portable Cord because there is no outside fabric to tear and break, rot or become dirty. The tough, resilient rubber cover sheds abrasion like a duck sheds water. It is non-absorbent, flexible and affords perfect protection to the conductor, eliminating the danger and annoyance of "shorts."

You'll get four to five times the wear from "U. S." Royal Portable Cord that ordinary cords give you. Any of our Branches can supply you.

United States Rubber Company

1790 Broadway

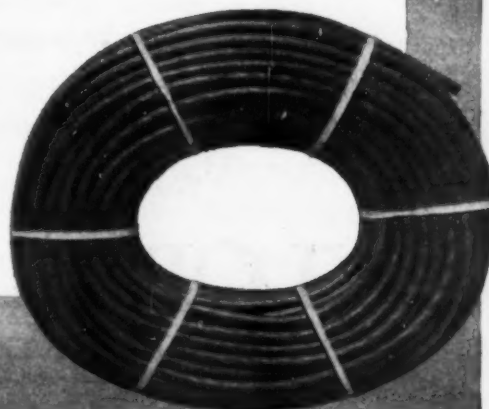
New York

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Omaha
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St. Louis
Syracuse



ELECTRAGISTS USE THE PRODUCTS OF ADVERTISERS IN THE ELECTRAGIST

The Electragist

(Trade Mark Reg. U. S. Pat. Office.)

The Official Journal Published Monthly
By the Association of Electragists—International.

FARQUSON JOHNSON
Editor and Business Manager

R. F. PAIGE, Advertising Director.
CLEVELAND OFFICE:
H. W. Booth, 301 Ellastone Building.

JAY S. TUTHILL
Associate Editor

Volume 23

JANUARY, 1924

No. 3

TO OUR READERS

All matter for publication must be in the hands of the Editor by the 10th of the month preceding publication.

All changes in our mailing list should be received by us two weeks prior to date of publication of the issue with which the change is to take effect.

TO OUR ADVERTISERS

Changes in advertisements and all advertising copy should reach our office not later than the TENTH OF THE MONTH previous to the date of issue.

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EDITORIAL AND BUSINESS OFFICE:

15 West 37th Street, New York City

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Flexibility

—is one of the features necessary to a perfect conduit. The flat circular weave—as of a coil spring—keeps the SAYLORDUCT flexible in every way. The special finishing compound keeps it soft and pliable under all climatic conditions. It will not become brittle in cold weather or soft and sticky in warm weather.

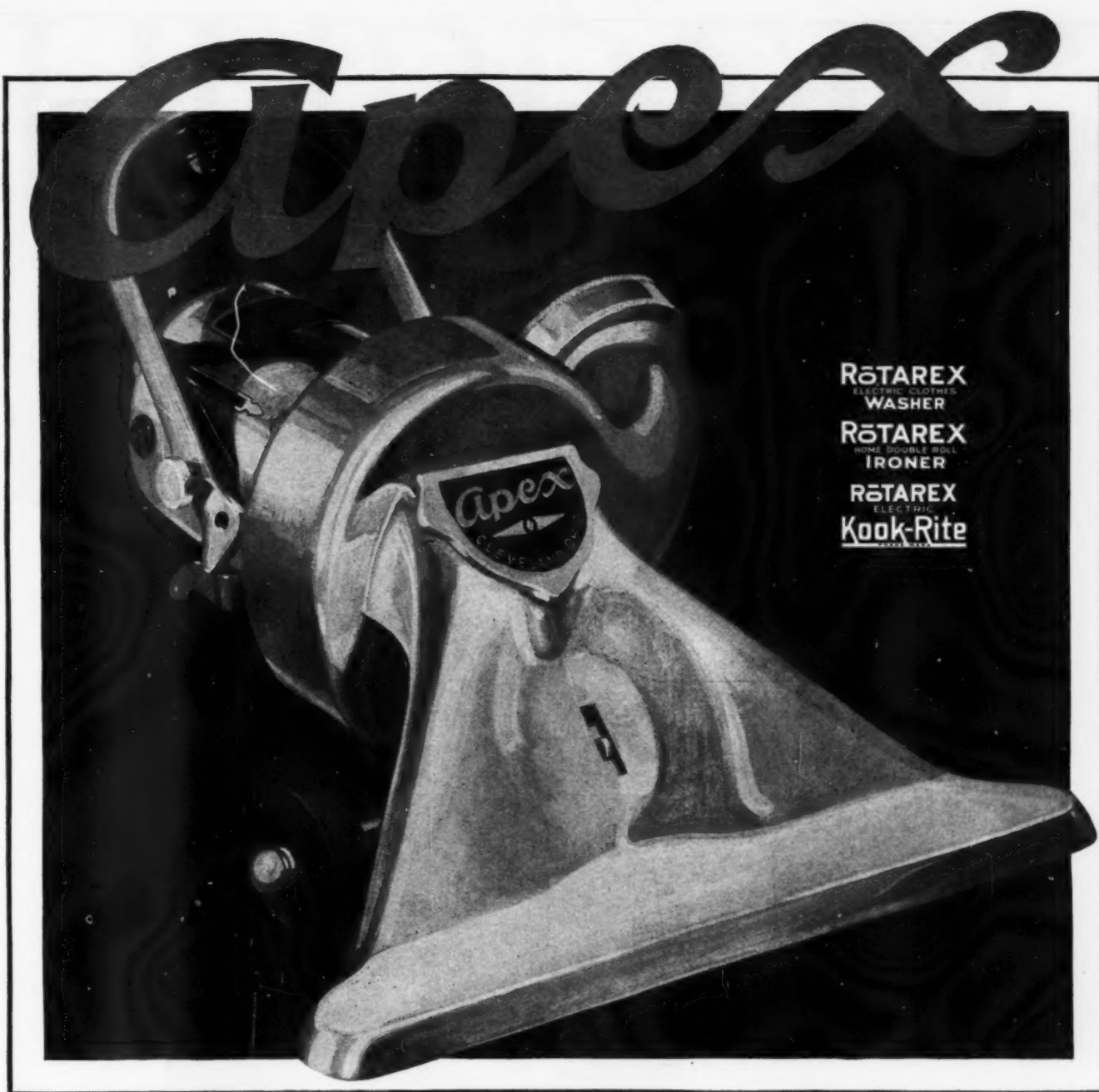
When you buy conduit be sure you get the kind in the handy carton with the SAYLORDUCT trade mark.

You will know it by the SAYLOR DUCK.

THE firm, flat, springlike circular weave makes a smooth inside surface. The special covering compound is absolute assurance against moisture.

SAYLOR ELECTRIC & MFG. CO.

WHEELING, W. VA.



\$47⁵⁰
RETAIL

You can accept your customer's
**Old Cleaner in
Part Payment**

New Reduced Price

(Complete Set of Attachments, \$10)

This substantial reduction in the price of the famous APEX, with an additional generous trade-in allowance for old cleaners, enables you to put this branch of your business on an entirely new and highly profitable basis. Write us on your own letterhead for full particulars.

"There is an Advantage in Handling the Apex-Rotarex line"

THE APEX ELECTRICAL DISTRIBUTING CO.

1081 East 152nd Street, Cleveland, Ohio

Factories at Cleveland, O. and Toronto, Ont.

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Used by those
Contractors
Who Prefer Quality
Products.

Made at Pawtucket, R. I., by the Tubular Woven Fabric Company

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HUBBELL



Cash in on Christmas Appliance Sales

—hundreds of homes now need new outlets

Now that Christmas is over, many homes in your vicinity have new electric appliances—but not enough outlets for making connections. Here's your chance for some big, profitable business.

Tell your customers how easy it is to replace a single outlet with the Hubbell Duplex Convenience Outlet shown above—providing two

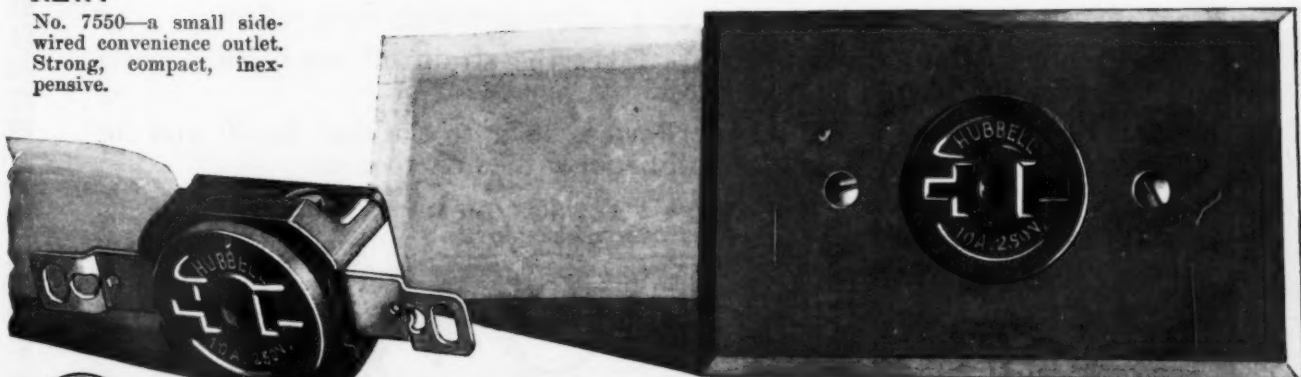
connections instead of only one; or how an old style screw-shell single outlet may be just as easily replaced by a Hubbell Single Convenience Outlet which accommodates any plug cap, whether the blades be parallel or tandem.

Boost your after-holiday business. Sell and install Hubbell Convenience Outlets.

HARVEY HUBBELL INC
ELECTRICAL WIRING DEVICES
BRIDGEPORT  CONN., U. S. A.

NEW!

No. 7550—a small side-wired convenience outlet. Strong, compact, inexpensive.



Remember it's the Te Slots, that make outlets "Convenient"

ELECTRAGISTS USE THE PRODUCTS OF ADVERTISERS IN THE ELECTRAGIST

ARRO-GRIP ALUMINUM SOCKETS

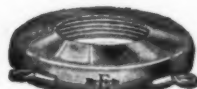
SUITABLE FOR SHADEHOLDERS AND REFLECTORS



No. 8120



No. 8122



No. 8131



No. 8125



No. 8125 With Wheeler Reflector

Arrow Aluminum Sockets have the attractive feature of flexibility. They will take either Shadeholders or Reflectors.

They permit choice from a wider variety of styles and types of reflectors.

No wiring necessary to attach a reflector or replace one which has been damaged.

Stock investment lower by not tying up a socket unit with each reflector.

The socket with the Arro-Grip feature takes the strain off the binding posts and prevents shorts from frayed wires.

For complete line of Arrow Wiring Devices refer to Catalog No. 20 and for other Arro-Grip Devices a circular will be forwarded on request.

THE ARROW ELECTRIC COMPANY
HARTFORD, CONNECTICUT

ARROW

The complete line of Wiring Devices

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The Bryant Beaded Ball



EVERY Bryant Pull Socket has the Bryant Beaded Ball on the end of the chain. It is a distinguishing mark. It identifies a Bryant socket — and is a convenience to you.

Examine the illustration below. See how firmly the ball is attached to the chain. Nothing can pull it off without breaking the chain. But you can slip it off and on in a jiffy. It is a cinch to alter the chain length on a Bryant Pull Socket.

The Beaded Ball is one of the features that make

**BRYANT
SUPERIOR
WIRING DEVICES
SUPERIOR**

We'd like to send you a sample of this Bryant Beaded Ball together with a Key Chain. Your name and address on a postcard and the words, "Beaded Ball" are sufficient. Send for it.



"A Superior Wiring Device for every Electrical Need"

THE BRYANT ELECTRIC COMPANY

1421 STATE ST., BRIDGEPORT, CONN.

NEW YORK
342 Madison Ave.

CHICAGO
844 West Adams St.

SAN FRANCISCO
149 New Montgomery St.

ELECTRAGISTS USE THE PRODUCTS OF ADVERTISERS IN THE ELECTRAGIST



putting
YOU
in Tungar
Advertising

Tungar
BATTERY CHARGER



**General Electric
Company**

Merchandise Dept.
Bridgeport, Conn.

Tungar advertising this fall is putting **YOU** in Tungar sales—getting **YOU** in on the profits.

Advertising in six of the leading radio papers is making Tungar mean “good battery charger” to radio set owners—and also those who have automobile batteries to charge.

Attractive new window cards are yours for the asking—to tie your window up to the national advertising and attract the sales it develops.

Ask your nearest G-E distributor

GENERAL ELECTRIC

ELECTRAGISTS USE THE PRODUCTS OF ADVERTISERS IN THE ELECTRAGIST

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Welcome the New Year

Strange as it may seem, the turning of the year is always welcomed, regardless of how much business may have been done during the current year. The business that has enjoyed great success looks forward to greater prosperity in the future; while the backward business contents itself in seeing improved conditions ahead during the coming year.

While business conditions in general during 1923 were nothing to brag about, still there have been worse years. Bradstreet's returns of building permits which were granted in the cities that reported for the first ten months of 1923 were a half billion dollars more than for the corresponding period of 1922.

When it is considered that no building operation of the present day is carried on without enlisting the services of the electrical industry in some manner, improvement in the building construction line helps practically all branches of the electrical industry.

So let us give thanks for past favors and welcome the New Year with hopes for further improvement. A slow but steady improvement in business conditions is far better for the general welfare than what is known as a boom. Booms are spectacular and not lasting. What we seek now is a permanent improvement, and as building permits granted during the latter part of the year were largely in excess of the same period of the previous year, 1924 looks good at this time.

Then let us all extend to the New Year a hearty welcome. Let us hope for betterment all along the line. Let us work for steadily increasing prosperity.

A Happy and Prosperous New Year to All!

Timely Lighting Sales

Now is an appropriate time to sell lighting in the home. The short days make it necessary for the housewife to do a certain amount of her work by artificial light, and much more artificial light is needed for every purpose in the home at this time than during the longer days of the year.

The kitchen probably is the best place to initiate such a sales effort, for it is here that good light is constantly needed and proper light most appreciated. The woman of the household is naturally the one to talk to. If the light in the kitchen is improved she soon wants better light in the other rooms, and there is where the electragist should secure profitable business.

The big lighting companies, as well as the fixture manufacturers, will supply a wealth of material from which suggestions for such a campaign may be readily adapted for such a purpose. An offer to accept partial payments will prove attractive to many prospective customers who might shy at a cash proposition. A week's trial installation will be found another attraction.

Then the campaign should be promoted through personal solicitation, direct mailings, and newspaper advertising, which should include some of the Lighting Fixture Council's valuable publicity suggestions. In all advertising be sure to feature a human interest appeal showing what a pleasure it is to work under adequate illumination in the home, where there is no annoyance from glare or distracting shadows. Stress the economy and convenience of electric light. A campaign of this kind is exceedingly timely at this season of the year.

Dealing in Billions

Time was when the word billion could be found only in dictionaries, but that was before this side of the Atlantic ocean became much of a figure in the large affairs of the world. Now we speak of billions as we used to talk of millions.

In pointing out some of the things that make this country renowned, the president of the American Bankers' Association has enumerated the following high spots that run into the billions:

Bank deposits that aggregate approximately forty billions of dollars.

More than seventy billion dollars of outstanding life insurance.

Improved farm lands valued at seventy-seven billions of dollars.

Three billion bushels of corn and a billion bushels of wheat raised in one year.

A yearly production of more than twenty-three billion gallons of crude oil.

Sixty billions of dollars in manufactured products turned out in a year.

In the latter item electricity is beginning to play a leading part. We now talk of our billion dollar industry, but some of the leading authorities say that the electrical industry is still in its infancy. If this be true, and there can be no reason for doubting it, no great period of time will elapse before we must employ the term billions within our own field of endeavor.

Talks From the Floor

How many Association members realize how interesting are the discussions on the floor of their conventions and meetings? They are delivered impulsively and without preparation, and they usually shoot a sharp point that goes straight to the mark.

For example, attention is called to a series of articles now being published in these pages from month to month. The floor discussions which follow these articles are taken from the official stenographer's records. They are not rewritten nor are they materially altered, but they make mighty good reading, as must be admitted.

Those who take part in such discussions have no opportunity to prepare their talks, so they speak from the heart out, as the saying goes. They are serious and earnest expressions of opinion, and prove that electragists are sincerely interested in their industrial problems.

It is recommended that the various groups that meet together in the electrical industry encourage their members to discuss their group problems in open meeting. Talks from the floor should become as popular as the old time district school debates in which the entire countryside participated.

Proper Accounting Methods

Some wag in the industry has said that the average contractor-dealer does not need an accounting system as much as he needs business on which to make an accounting. Put the shoe on the other foot and he would have more business if he knew his costs—if he properly recorded his transactions—if he carefully systematized his daily work.

Some years ago the national organization which since has become the Association of Electragists—International, called upon other organizations in electrical industry to offer their assistance in devising an accounting system that would meet the needs of contractor-dealers.

As a result of this call a competent committee was formed and work was begun. After carefully considering the various plans and methods submitted, a system was brought out which received the approval and endorsement of the National Electrical Credit Association, as well as the accounting departments of the jobbers, manufacturers, and other organizations.

This method is called the Standard Accounting System. It conforms generally with the accounting systems of the various other branches of the electrical industry, so that all information of such nature may be uniform and more readily used for purposes of comparison.

Two of the important principles laid down by those who are responsible for perfecting this system are (a) that all

forms used by the contractor-dealer should be standardized; and (b) that every sale should be costed—whether on contract, jobbing, day work, or retail. Surely it is of the utmost importance to know the actual costs on every transaction, and it would be difficult to do this without having standard forms; and so both of these are cardinal principles.

Since the formal adoption of the Standard Accounting System by the Association, members throughout the country have put the set into operation and have proved its value to them. It is concise and simple, and with the proper facilities it is easy to operate.

When it was found that a number of smaller contractor-dealers did not adopt the new system because of being unable to employ additional help to operate it, a small though complete system of simple record keeping was designed by the Association. This method is called the New Business Record, and is being used successfully by those who keep their own books.

With the beginning of the new year, those electragists who have not already adopted one of the other of the Association's systems should do so without further delay. No other branch of the business is more important. The electragist should know where he stands—should know his costs—should be in a position to submit a statement of his business affairs at any time. In other words, he should standardize his business with the Standard Accounting System.

That Novelized Play

During the annual convention of the A. E. I. at Washington, D. C., last October, one night was set aside for the presentation of an electrical play. The production drew a crowded house, and loud were the praises bestowed upon the author and the able performers.

Such intense interest was evinced in this electrical play that requests have been received asking that it be published in story form. So the author, Thomas F. Chantler of the Society for Electrical Development, has been prevailed upon to novelize his own drama, and it will be released for publication in these pages next month.

"Do It Electrically" is the title of the play and the story. It shows how a discouraged contractor-dealer was electrified into profit making action through the promptings of a charming damsel. It is replete with human interest—entwining the affairs of love and business in a most adroit manner.

And there is an inner meaning to the story—a moral so pat that every electragist must profit by reading it.

Look for this new electrical story and read it. It will be published exclusively in THE ELECTRAGIST.

The Electragist hereby extends to its readers the heartiest good wishes for a most Happy and Prosperous New Year.

Personality in the Electrical Business

BY ROE FULKERSON

Humorous Talk Before Washington Electragist Gathering
Contained Sound Business Philosophy of Tangible Value

We people who are unfortunate enough to have to speak more or less in public are always so conscious for the first moment or so that we are on the platform, of several hundred pairs of eyes boring into us and wondering whether the baldheaded man with the rubber tired spectacles is going to be grave or gay, whether he is going to be statistical, or just an ordinary liar.

I have often wondered if you people in the audience were also conscious of the fact that we who suffer even more than you, when we first come on the platform and look out and say these few preliminary words, are also sizing you up, just as you size us up.

Someone has said that all men are liars, but it was better to call them so collectively than individually. Perhaps it would be embarrassing for you to express your opinion of me as an individual, but it is safe for me to express my opinion of you as a group, and eliminating the ladies for the moment, I want to say that in my very early youth I found that the homliest people in the world were the best people in the world, and I want to say that this must be the best bunch of men in the country.

Now the things I want to say to you on the subject of personality are in almost opposition to the common idea of a great many people, who seem to think that personality is a gift from God, like a club foot, or a wen. It is in my opinion quite the contrary.

Can Be Acquired

I believe there is hardly a person who could not, with a sufficient amount of work, learn to play a piano. I am very sure you could, if you would work at it. Perhaps some of you would make much more of a success of it than others, because you are more adapted to that sort of thing.

And so, some of us are better adapted to learning this thing called Personality.

It is my purpose to tell you something about what I have found out with reference to personality.

A man was telling me the other day of an instance of a chap who had come in contact with one of these old time physicians, who wear those long white beards, coming away down here to his waist. One day they were sitting on the club veranda, and this doctor's friend

said to him, "Doc, tell me something—what do you do with those whiskers at night? It has always worried me. I wondered whether you took them out and laid them on the covers or tucked them inside of your pajamas, or what on earth you did do with them." "Well," Doc said, "to tell you the truth, I never thought about it. I don't know what I do do with them."

Well, that night Doc thought of this question that his friend had asked him, and he had never made much of a study



Roe Fulkerson

of himself, so when he went to bed that night he laid his whiskers carefully out on the covers, and then he said to himself, "Why, that's easy—I can answer that question all right." But after lying there a while that way, a few minutes, he wanted to turn over, so he took his whiskers and stuck them back under the pillow, and then when he went to turn over he almost pulled them off his face, and he just got up and cut them off.

Think About Yourself

You see if that friend of Doc's hadn't asked him that question, he probably would have gone through the rest of his life without knowing anything about what he did with his whiskers at night. Just that little question set Doc to thinking about himself too much.

Now if some of the things I am going

to say to you tend to impress you and make you think about yourselves, that is what I want to do—don't think about me—but try to apply the things I am about to say to you, to yourselves and your own business, with the thought that it is going to make better business men, because we employers are inclined to criticize the people who work for us without ever giving a thought to the fact that there is a lot of room for improvement in many of us. If you don't believe it, just go home and ask your wives.

I was sitting here awhile ago watching your Secretary, Mr. Johnson, writing with his left hand—just watch him—he is a southpaw, all right—and I was reminded of a little incident when I was going home from my office, driving along in my car, thinking about something else. You know in Washington, we have to let the fellow come in from the right—he has the right of way—and on this night I suddenly saw a two-ton truck bearing down on me from the left, and I pulled everything on my car that had a tendency to stop it, and the darky on the truck did the same thing, with the result that we stopped our cars almost touching. Well, I leaned out of my car and I said some things that I don't think I had better repeat here, and I finally asked him, "What is the matter with you, anyhow?" "Well," he said, "dey ain't nothin' the matter with me, boss—just a lefthanded nigger in a righthanded truck."

Study of Oneself Necessary

There are a lot of lefthanded people going through this righthanded world; a lot of people who are square pegs in round holes. And that is the thought that I had in mind, that I wanted to say a few things about, this morning, with the idea of trying to change a few things in ourselves, which may make life a little bit easier and smoother and make us a little bit better business men.

In order to do that we have got to put a little thought into this question of personality.

Now all of you men know that in your Masonic organization or Knights of Columbus, there are certain men that stand out against the drab background, who are known to have Personality, people that everybody in the lodge and in the church, know well, while the great

majority of the people are just a background, against whom these men shine; and I believe that all of these men—at least all of them to whom I have ever talked—have become so because they have made just a little bit of study of this thing called Personality.

On the same block with me here in Washington lived a chap named Perry Perkins, an odd sort of fellow, who made a failure of everything. After he got out of high school he worked in the corner drug store, behind the soda fountain, and he grew up to the age of about thirty years without being anything but a failure. Yet, oddly enough, that man had three ambitions in life. First, he wanted to own a dog. He had never owned a dog, because he had no place to keep him. Then, secondly, he wanted to own a business of his own. But he didn't succeed in getting in business, because he had no money with which to buy it. And his third ambition was to get married—and he couldn't afford that.

Well one evening this chap's father walked across F street reading a paper, and after this fellow, Perry Perkins, got the insurance, amounting to ten thousand dollars, he was in a position to gratify all three of these ambitions.

So he went down to the dog store, and told the proprietor he wanted to buy a dog. The proprietor asked him what kind of a dog he wanted, and he said, "Oh, I don't care, just so it's a dog," and so he just bought a dog, just any old kind of a dog, and took it home.

Then he went down to a merchandise broker and bought a business—just any old kind of a business—a business that he didn't know anything about any more than he did about anything else. Then he went out to the Arcade where he met a girl, danced with her, and finally married her. He didn't want any particular style or shape of wife—he just wanted a wife. He didn't care whether she was blonde or brunette.

Well in six months' time the dog catcher had his dog, the sheriff had his business, and a divorce case had his wife.

Now all this happened to Perry Perkins just because his life hadn't been planned. He hadn't deliberately planned to do anything. He was just drifting along with the current—as so many of us are drifting.

Battles in Business

The thing that I want to impress upon you more than anything else is the main thing in this battle of business.

I don't know anything about your business, but what applies to all business, applies to yours. The battle of business is no longer a battle of dollars—it is a battle of personality.

Business has been so card indexed, so carbon copied, and so systematized, that there is no such thing, any longer, as advantage of one man over another, from the dollars and cents point of view.

You men all buy the material that you use in your business from the same factory, the same foundries, or whatever you get it from, and you all pay about the same price. There are no inside prices any more.

When you go out to hire electricians to do your work for you, you either get a union man, at the union scale, or you get a nonunion man, and pay the union scale anyhow. So that none of you have an advantage over your competitors in matters of dollars and cents.

Yet in every business in the world, there is something that attracts people to it. Your wife and my wife, and you and I, always go to the same man to get our clothes, or to buy our tobacco, and the ladies, to buy their hats, and all that sort of thing, although there is no difference in the prices, as between the different stores. But in that store, in that establishment, to which you always go, is something which makes you call it a nice place to deal; there is somebody there that you like; there is somebody behind that counter with personality; and if it happens to be a vast establishment the personality of the proprietor is eternally oozing over every counter, through the training that he has given his clerks.

If there are two men in business, with apparently the same opportunities, and one of the fellows is doing all of the business, and the other getting none of it, that difference is just the difference between the two individuals; it isn't a dollars and cents difference. The fellow who is getting the business, has personality, while the other doesn't have that quality. That is a thing that is worth cultivating, I think, by everybody.

Now if you have an electric motor in your establishment, that thing has a value as a going machine, while it is driving your machinery and doing your work. But if the wires get burned out and the bearings get so worn that it has no value as a going machine, it then has only a secondhand value—a junk value; it is worth just so much for the copper that is in it, and so much for the steel that is in it; and it can be sold only as junk.

I was rather interested the other day in trying to work out a whimsical idea of my own as to what the junk value of a man is.

Human Junk Value

Did you ever stop to think what your junk value will be, when the undertaker is all through?

By working out the problem from a chemical point of view, I found that in the ordinary man there is just about enough water to make a batch of home brew; about enough sugar to sweeten two cups of coffee; enough phosphorus to make two boxes of matches; enough salt petre to fire off a gun, and about enough sulphur to take the fleas off of a very small dog.

I found that the actual cash value of all that stuff, in a drugstore, is really about ninety-eight cents.

That is your junk value—what you are worth when you cease to be a going concern, and cease to have any personality whatsoever.

Now after I had figured that out, the wife of one of my few associates came in, and I told her about this, and she remarked to me that that might be my wife's husband's value, but her husband was worth his weight in gold. That started me off on another tack. Her husband weighs a hundred and fifty pounds, but you know they don't weigh gold by averdupois, but by troy weight, and so figured that way he would weigh one hundred and eighty-two pounds. Gold is worth, in round figures, \$240 a pound, and taking this fellow at a hundred and eighty-two pounds, if he was worth his weight in gold, he would actually be worth forty-five thousand dollars. So any man who has forty-five thousand dollars is worth his weight in gold.

But I don't think that is the proper method to be used in estimating a man's value, because if he had forty-five thousand dollars, the very best that he could hope to get out of it, would be five percent—that is, if he wanted to be safe.

Now a man who is earning five percent on forty-five thousand dollars, is actually worth his weight in gold, and that runs to about two thousand, two hundred and fifty dollars a year, or forty-four dollars a week. So that if a fellow is earning forty-four dollars a week, his wife can figure that he is actually worth his weight in gold.

The difference between the junk value and the going value of this man, on whom we are figuring, to my mind, is very largely a question of personality.

And I want to go a little into another line of business thought, to try to demonstrate to you what I believe constitutes personality in business, and in doing it I am going to give you very briefly, the history of advertising in this country, which oddly enough is tied up closely with the history of pronouns.

History of Advertising

The first man who ever had a pair of ten dollar trousers that he wanted to sell for seven dollars, wrote his advertisement this way. "I will sell in my store, on Monday, some of my ten dollar trousers for seven dollars. John Smith." After awhile it was realized that this sort of advertising was too egotistical, and so they switched from the pronoun "I," and commenced to use the pronoun "we"—although I believe Irving Cobb says that the only people who are entitled to use the pronoun "we" are a newspaper editor and the man with a tapeworm.

But anyway the second stage in advertising took up the "we" and although this store was owned also by John Smith, the advertising man wrote the advertisements this way "We will sell in our store, on Monday, ten dollar trousers for seven dollars."

Then they began to get the idea that perhaps that wasn't just exactly the right form, and so they began to use the third person, in writing advertisements, and the advertising man wrote the ad this way: "Mr. John Smith will sell in his store, on Monday, ten dollar trousers for seven dollars."

Then suddenly some genius woke up to the fact that those things were all wrong, that the ad ought to be written this way: "You will be interested in knowing that you can get yourself a pair of ten dollar trousers for seven dollars, if you will come to our store. John Smith."

Make Unselfish Appeal

And today whether it be newspaper advertising or salesmanship of any kind, in the written word the good work is always done with the unselfish appeal to the other fellow—"Never mind me; I don't cut any figure; you are the person interested; you have to wear the pants; you are the fellow that has to have the patches on them, and has to pay for getting them pressed; consequently, you are the man who is interested in the pants, and not me."

So keep that in mind when you are writing your sales letters.

While it has been demonstrated that that is one kind of advertising, it is well

to remember the advertising that can be done verbally, over the counter; it is well to remember the advertising that you are doing whenever you talk to another man; and just as frequently as you use the perpendicular pronoun, just that frequently do you fail of developing personality. The more frequently you talk to the other man about himself, and his interests, and his affairs, the more frequently will you demonstrate to him that you are a brilliant fellow—because you are interested in him.

Some wit has said that a bore is a man who talks about himself, when you want to be talking about yourself.

Just bear in mind that the fact that your flivver went up such a hill on high, is of no interest whatever to the other fellow. He wants to tell you about what his Ford did. It doesn't make any difference how many fish you caught, if you will just sit still and hear the other fellow tell about his fish, you will impress him that you are a brilliant fellow, a man of great personality.

Value of a Smile

Let us grant that you have got to be a little bit dishonest when you start that sort of thing. I could tell you about, not only myself, but others, who have systematically gone to work to listen to other people, and who have found in almost no time at all that what is a pretended interest is really an interest, because as soon as you quit thinking about yourself, you begin to find out how interesting other people are, and how much more you can learn about everything in the world, by listening to somebody else talk, simply injecting a little word here and there, to keep them going—"That is wonderful," or "Say, I went home and told my wife that story of yours, and she was just as interested in it as I was." That's the sort of thing.

Just to illustrate a point I want to bring out, a thing happened out in Kansas City, some time ago—a little fellow named Jimmy Curran climbed a tree to get a walnut, or something, and the electric service wires running through the tree struck him and burned his face horribly. In time the case came to trial in a suit for damages, and it occurred to Jimmy's lawyer to ask Jimmy such a question that it would cause him to smile, and as the question was put the little fellow attempted to smile, but made such a horrible grimace with that horribly distorted face, that the jury went out and rolled up a verdict of twenty thousand dollars for little

Jimmy—damages for the loss of a smile.

That boy is going through life without ever being able to smile, and the jury thought he was damaged to the extent of twenty thousand dollars.

Now let's go back to that five percent interest thing. The courts have decided actually that a smile is worth twenty thousand dollars to a man. Five percent on that is a thousand dollars a year. So a man or woman in business who has a smile has an asset that is actually worth one thousand dollars a year.

If you were hiring a man, would you hesitate in your selection between two men, one having a smile worth in actual cash to you a thousand dollars or more a year, and the fellow who has a smile, but is afraid to crack it, for fear he will be ruined?

Those are just hard business facts, that jingle the bell of the cash register.

If I was going to summarize what I have tried to say to you, I would say that Personality consists of cheerfully serving the best interests of the other fellow, not of yourself. That is Personality, and that is business sense, and when you stop to think about it, it comes pretty confoundedly near to the Sermon on the Mount, and a whole lot of other things—that is just the old idea that the best interest of the customer, is the best interest that a man ever had, and if you will just serve his interest, listen to his story and smile as you do it, success can not be far around the corner.

Colored Lamps Do Not Fade

The assertion has often been made that colored lamps fade; this referring of course to natural and spray colored lamps, as dipped ones will peel with long use.

A thorough investigation has been made of this question by the Westinghouse Lamp Company and it has been found that the apparent fading is due to dirt collecting on the lamps. Some 75 watt Mazda daylight lamps that had been in service for over two years were removed from signs. They were picked because they appeared particularly faded and yellow, but when they had been cleaned thoroughly, and lighted again the original sparkle, color and brilliancy was restored. In addition it was found that the dirt was absorbing 44.5 percent of the light, so there is a double advantage in keeping the lamps clean.

Debate on Super Standard Installations

Both Sides of Important Question as Presented at Last Annual Convention of Association of Electragists Are Given Together With Floor Discussion

[NOTE: Mr. Comstock, who lead the discussion on the affirmative side of this debate, is a well known electragist of New York City. Mr. Stewart, who took the negative side, is superintendent of the New York City Board of Underwriters. Many points brought out in the discussions from the floor on both sides, which are appended hereto rather than printed in the official proceedings, are of far reaching value and should be read with interest by electragists.—The Editor.]

L. K. COMSTOCK, Affirmative: Stated in its simplest terms, the resolution in my opinion means that a super standard of electrical construction is entitled to a specific decrease in the fire insurance rate for premiums.

It is an unquestionable truth, though one often lost sight of, that all losses by fire must ultimately be borne by the public. The insurance companies are the machinery for distributing these losses, nothing more. If the losses fell on them, their funds, large as they are, would speedily be exhausted, and the service which they render to the public would come to an end. Therefore a necessary condition precedent to the prosperity of the insurance companies is that the rate of premium paid for insurance should be remunerative, and the main object of the tariff system is to secure such remunerative rates. Prosperity of insurance companies depend on both a decrease in fire hazards and equitable but remunerative premium rates.

The premium rate system has steadily developed in minuteness of classification and in adaptation to wider experience, as well as to changes, in the character of many classes of risks by improvements in buildings, and by the introduction of new kinds of materials and machinery.

The estimates of risks and the determinations of premiums are largely governed by individual opinion and by competition, no amount of experience furnishing a statistical basis on which trustworthy predictions of average loss can be made.

Every rate is a composite of many rates, evolved from experience and opinion. Every rate consists of two parts, the base rate and those other rates which affect the base rate by revision up or down. These secondary

rates have been determined largely by experience, while into the base rate other considerations enter which resemble collective and competitive opinion rather than judgment resulting from the analysis and scientific classification of data.

That portion of the rate due to the electrical hazard falls within the group of rates forming the base rate and has not been derived from a careful scrutiny of the facts flowing from this particular hazard.

While it is recognized that the electrical hazard may vary through wide

The Resolution

WHEREAS, The rate of fire insurance is based on hazards of building construction; and

WHEREAS, Super standard electrical installations would reduce hazards of fire from electrical causes, and

WHEREAS, Reduction in rate for super standard installations would

- (1) be in the interest of the public;
- (2) improve the quality of electrical construction;
- (3) tend to build up good will in the industry;

THEREFORE BE IT RESOLVED, That such a plan is desirable and feasible.

The Judges

R. A. Lundquist, Chief, Electrical Equipment Division, Department of Commerce.

E. C. Crittenden, Chief, Electrical Division, Bureau of Standards.

F. P. Cartwright, Secretary, Building Code Division, U. S. Bureau of Standards.

ranges, depending on the varying degrees of excellence of the material used and the quality of the labor expended on them, yet no attempt has been made to vary the rate to accord with the wide differences in the hazard.

It is conceded I hope in the last analysis that the public pays the whole cost of insurance administration and profits, as well as all the losses, and therefore is entitled to a hearing whenever it can find a mouthpiece.

It is axiomatic that any plan tending toward an improvement in electrical construction from a fire hazard standpoint is desirable; and it is desirable for the following reasons:

(1) It will tend toward the elimination of economic waste incident to the destruction of buildings by fire.

(2) It will decrease the loss of life by fire.

(3) It will tend to prevent positive losses incurred by interruptions of business, the processes of production and the pursuit of pleasure.

It is a well known fact that there are in nearly every line of material used in electrical construction, articles possessing qualities of serviceability and durability far in excess of the quality known as Code material.

Heretofore Underwriters have confined their attention almost solely to materials and have been all but silent on workmanship. But the quality of workmanship can be greatly improved and ought to be entitled to consideration in the same manner as super standard quality of materials. Code material represents the lowest permissible standard, and whenever higher qualities of material and workmanship find their way into installations, they do so against the competition of low standard materials, a competition unsound economically and ruinous financially to the competitors; but insurance companies do not recognize the value of better construction by a lower rate of insurance.

Various other fire risks have and ought to have their appropriate valuation in the making of rates. As instances of this, one needs only to mention the reduction of rates when watchmen's clocks are used; the reduction of rates for the use of wire-glass; fire alarm systems, fire doors, fire walls, elevator enclosures; but the fire hazard due to electrical installation is not separately evaluated in rate making, but is lumped into the base rate, along with other risk considerations; such as—fire department equipment, frequency of stations, efficiency, district characteristics, competition and other points which do not individually readily yield to scientific evaluation. Notwithstanding the fact that in the consideration of rate making Underwriters regard fire risks due to electrical causes of small import, yet it has been estimated that from 4% to 5% of all urban fires are of electrical origin, due to faulty material, faulty installation, or the wrong use of proper materials.

If any appreciable number of fires are of a determinable origin, it would seem that that particular risk ought to be separately evaluated, and that the rate of insurance should be correspondingly affected. A rate ought to be lowered in direct proportion as the risk is removed, and ought to be raised in proportion to the presence of the risk.

Underwriters have set the lowest permissible standard by putting their stamp of approval on so-called Code material; but on the basis of the use of Code material, many fires are known to have an electrical origin, and many other fires whose origin is pronounced Unknown by the fire Marshall are undoubtedly of electrical origin, due to the use of faulty material or the wrong use of right material.

Therefore if installations are made of a super standard quality, a reduced rate of insurance is indicated. Should the fire Underwriters admit this contention, but plead impracticability on the ground that the risk is small and an appropriate adjustment of the rate difficult, they place themselves in an untenable position, because a risk that causes 4% or 5% of all fires, is measurable, and if measurable the risk can be translated into an adjustment of the rate.

Should the fire Underwriters argue against the reduced rate on the ground of difficulty of inspection, it may be said by way of retort that the difficulty of inspection need be no greater, because the inspector under present conditions merely satisfies himself that Code material has been used, and under the proposed conditions he would spend no more time in satisfying himself that super standard material had been used.

Everyone knows that there is much material manufactured many degrees better than Code, and if such super Code material is used, it is but common sense to conclude that the installation of super Code material is a better risk from an insurance viewpoint, and if such an installation is a better risk that fact ought to be reflected in the rate.

In New York the Underwriters admit that out of a total of 2,357 orders to remedy, 57% were ignored. These refusals or failures to remedy were no doubt listed with the insurance companies and no doubt resulted in an increased rate. If therefore there is a penalty for failure to comply with the Code, there should be a benefit in the form of a decreased rate accruing to policy holders if super Code material is used.

If the Underwriters were to adopt the principle of penalties for sub-standard work, and the correlative principle of benefits for super standard work, losses by fire would be reduced and hazards to life would decrease. The life hazard seems to have been lost sight of. A fire hazard has always a potential life hazard. Almost all in-

surance companies make good the fire damage. What is to be said about the life hazard? If the life insurance companies are awake to this situation, they should be interested also in better standards of electrical construction and an increase in the use of super Code material. If, as has been stated, the fire loss due to the electrical hazard is 4% or 5%, how can the insurance companies afford to skimp on their inspections?

That the inspections in cities like New York, Philadelphia and Chicago are insufficient, is established by the fact that out of a total loss of \$205,883 in 1922 in New York, the Underwriters stated that \$189,749 occurred on premises which had not been inspected at all and of which they had no knowledge. Perhaps some of this sort of thing will always occur, but obviously the proportion indicated here is altogether too large and requires attention on the part

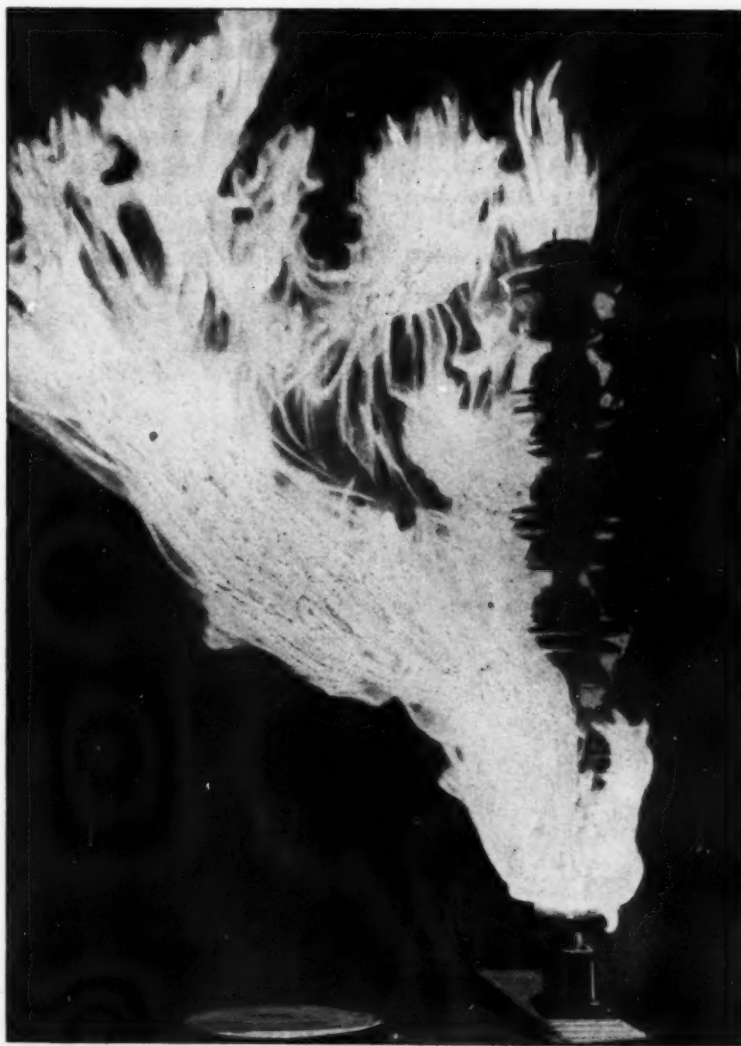
of insurance companies. If the Underwriters cause it to be understood that a reduction in premium rates is available when super standard construction is used, that fact alone will go a long way toward the elimination of fire losses from electrical causes, and the consequent fear on the part of the public of the use of electricity.

Speaking on behalf of the Association of Electragists—International, I ask the very serious consideration of the Underwriters to the question of the creation of a super standard Code of electrical material, with a corresponding reduction in premium rates.

I have already shown the public interest in a super Code standard.

That the adoption of a super Code standard will improve the quality of electrical construction is so axiomatic that it requires no debate.

The adoption of a super Code standard will build up goodwill in the in-



A 42 Foot Arc Was Formed at a Potential of 1,000,000 Volts During Demonstrations Recently Made at the High Voltage Laboratory of the Westinghouse Company at Trafford City, Pa. The Flashing Zigzag Arcs and High Potential Surges Which Are Thought to Set World's Records for Laboratory Work Were Witnessed by Prominent Electrical Men of this Country and Visiting Engineers From Abroad

dustry. This statement is also beyond the field of debate, but requires restatement, about as follows:

The adoption of a super Code standard, accompanied by a reduction in premium rate, will tend to make competition more intelligent than it is now. It would introduce into the comparison of bids an element, now lacking, tending toward a proper evaluation of both workmanship and materials; and any fact which introduces more intelligence into the comparison of bids, makes for goodwill in the industry.

Presents Arguments Against

F. J. T. STEWART, NEGATIVE: It has been pointed out that fire insurance companies regard electricity as an important fire hazard, and that under the operation of the present National Electrical Code an important percentage of the total annual fire loss is due to electricity. It is contended therefore that super standard installations should appreciably reduce this loss and justify special recognition by Underwriters. If this conclusion is correct, it must be predicated on the assumption that the electrical fires have occurred largely in equipments installed and maintained in full compliance with the present Code.

An analysis of electrical fires shows that most of them do not originate in standard installations but in such as are defective, usually the result of improper installation, deterioration and

neglect, or from misuse, as in the case of electric pressing irons, improper fusing, etc. In fact a nine year summary of the result of detailed investigations of fires in New York by the Electrical Department of the New York Board of Fire Underwriters shows that out of a loss of \$1,614,338, the cause of which was definitely established as electrical, only 21% was caused by fires in equipments which according to the records were in compliance with the requirements of the National Electrical Code. Some part of this small percentage must also be charged to the misuse of such standard equipments and to possible deterioration. The balance, amounting to 79% of the losses due to electricity, occurred in equipments known to have been defective.

The fire loss due to electricity has been characterized as an important percentage of the total annual fire losses. We should first of all determine whether or not the electrical loss is sufficiently large to justify a superstandard electrical code and special recognition of the reduced fire hazard to be expected from compliance therewith. The records of the National Board of Fire Underwriters, which have been comprehensively compiled with care for the last five years, show that the annual fire loss from electrical causes during that time was 5.3% of the total. These figures have been criticized by electrical statisticians of the Society for Electrical Development, who after an

extensive investigation estimated that the electrical losses are less than one-half of this amount or to be exact 2.57%. I have already shown you records indicating that less than 21% of the electrical losses have occurred in standard equipments intelligently used. Therefore 21% of 5.3% gives 1.1% of the total annual fire losses as the amount due to fires in standard electrical equipments based on the insurance records; or less than 0.55% based on the estimate of the electrical statisticians.

If the exact amount of the electrical losses due to standard installations lies somewhere between these two estimates, it must be evident that the cost of preparing and applying a super-standard electrical code to save at the best some portion of this loss amounting to only a fraction of 1% is hardly worth while. Certainly no degree of recognition would be justified that could be a determining factor of a superstandard equipment. The cost to the electragnists and the Underwriters of preparing such a standard, applying it and giving credit for such a small degree of difference in the fire hazard would greatly exceed the saving—even if the electrical loss could be reduced to zero thereby, which of course would be impossible, as misuse and deterioration will always cause some fires.

Detailed specifications for a super-standard equipment would only constitute another set of minimum require-



"It Pays to Advertise," Say Officials of the Apex Electrical Distributing Company of Cleveland. Here Are Two Booths Which Were Taken at a Recent Electric Show in the South, and it is Significant That Each One Was in a Different Part of the Exhibition Hall, and Each Arranged Differently

ments to secure a different classification and it could never be made so high as to include all the abnormal precautions which a limited number of persons are sometimes willing to take. Anxiety to avoid interruption and disorganization of a highly profitable business and to go the limit in safeguarding life are the most likely motives for providing extreme safeguards rather than a relatively small insurance reduction.

After the establishment of a superstandard, there would be at once a tendency to make its provision a part of the ordinary standard. It would weaken respect for the present Code. Municipal authorities, eager to do their duty in safeguarding lives and property against this mysterious hazard, would play safe by enacting the superstandard into law, either in whole or in part. In fact the laws in some cities now include certain requirements which would probably be suggested as part of a superstandard, such as conduit work to the entire exclusion of knob and tube work.

If a superstandard were adopted and a considerable number of installations were made in compliance therewith, merely for the insurance recognition, much confusion and friction would result, provided extensions or alterations were made without ascertaining in advance that an installation is in the superstandard class when such is the case. It would complicate the electrical business to the extent of making investigations necessary in each case to know what standard should govern any extensions or alterations. Experience already gained in a few cases where especially stringent requirements have been enforced, shows that friction has occurred, because it was assumed that the usual requirements were to apply, and extensions were made accordingly.

The increased safeguards to electrical installations which are being added from time to time and intended primarily for the protection of life all tend in the aggregate to strengthen the protection against fire. They also teach caution and a more intelligent and careful use of electrical equipments. These considerations may be counted upon to further reduce losses by fire below the present relatively small amount in buildings having installations in compliance with the present code.

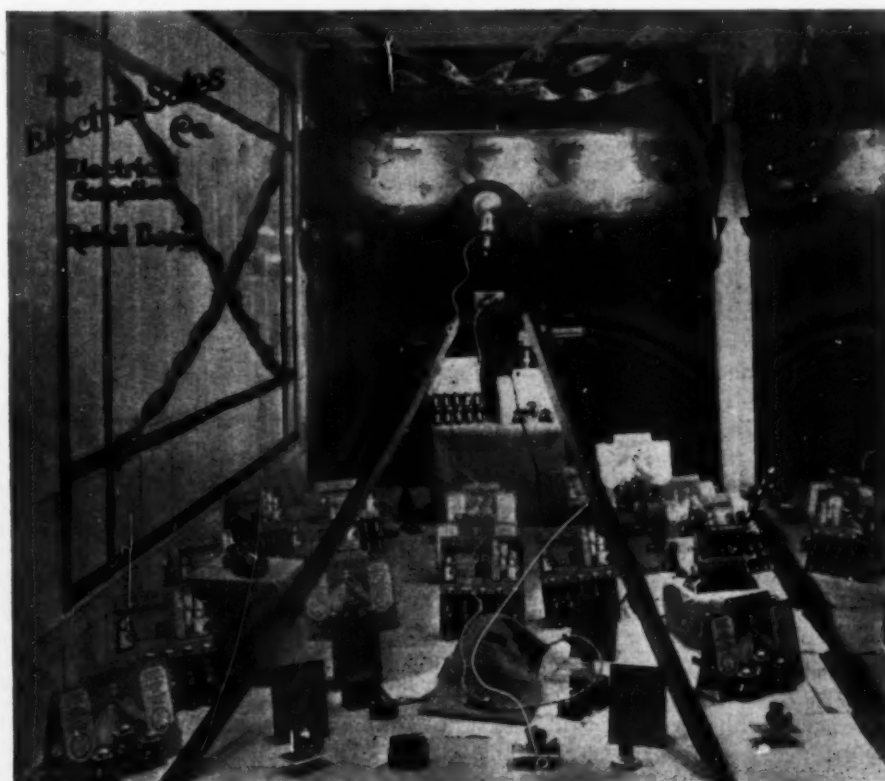
Most insurance schedules start with a base rate which is intended to include the collective losses resulting from commonly found fire hazards which have been protected by reasonable safe-

guards. Thus it is frequently found that no specific penalty is provided for fire hazards due to lighting, heating, hot ashes, electricity, matches, smoking, etc. Accordingly it often happens that no cognizance is taken of a standard electrical lighting installation in a building, as compared with the absence of electricity altogether. This is based on the conclusion that the losses on fully standard electrical installations are so small that they do not justify the cost of applying a small charge in every building. Theoretically of course there should be some charge for an electrical lighting installation, as in the long run the presence of any electrical installation however well safeguarded is going to add something to the fire hazards, as compared with no artificial light whatever. It may therefore seem that because of the practical considerations involved the electrical industry is already being favored in the cases where no attention is called to the fire hazard incident thereto by any penalty in the insurance schedule for a standard electrical installation.

From the strictly rating point of view, the most important objection is that the establishment of such a practice as is sought in this connection would constitute a precedent that would have to be followed in many other and quite

different connections, so that for instance we would have a superstandard for acetylene, city gas fuel oil burning equipments, internal combustion engines, fire alarms, sprinklers, fire windows, etc. Any thoroughgoing practice of that kind is physically impossible because of the multiplicity of cases that would arise and the minute differentials that would have to be figured in thousands and thousands of risks.

In so far as the fire hazard is concerned, I am convinced there is no occasion for a superstandard code. From the standpoint of the electragnists anxious to do only the highest grade of work, I believe he is better off without the superstandard—another minimum requirement. It would encourage the cheap and irresponsible type of contractor to undertake high grade work by putting a superstandard in his hands. At present the field is wide open to give good salesmanship, lighting efficiency, artistic effects and high grade work a chance to win out by appealing to higher instincts of human nature rather than to a relatively immaterial difference in the degree of fire hazard, even if this difference justified the expense of analyzing it. Most manufacturers, including even makers of fire extinguishing equipment, aim to avoid a situation where the chief con-



This Display of the Electric Sales Company, Columbus, Ohio, Won Second Prize in the Last Contest Conducted by the Benjamin Electric Manufacturing Company of Chicago. Note the One Central Appeal

sideration influences a sale is whether or not the insurance recognition yields an attractive return on the cost of the article to be sold.

The present electrical Code is already a high standard. This opinion I think has been confirmed by the record of fire losses in standard equipments already quoted. If the Code is occasionally strengthened when experience develops weaknesses, we can feel reasonably certain that there will be no necessity for a superstandard with all the expense, complications and annoyances resulting from two standards, the enforcement of which must of necessity be arbitrary and 100% complete in order to place the equipment in one class or the other.

Comprehensive reinspections at more frequent intervals would in our opinion do more to reduce the electrical fire loss than a set of superstandard requirements. The fire records already quoted confirm this conclusion, showing as they do about 80% of the electrical fire loss results from defective equipments and is therefore preventable under the present Code by proper care and maintenance.

Even should electrical fire losses in standard equipments ever show the need of better safeguards, it seems as if you must agree that a strengthening of the standard will be essential rather than the creation of another or super standard. You cannot afford to go ahead electrifying America under a minimum standard that may be sufficiently weak to leave even a chance that electricity will figure as the worst of all fire hazards. You are steering the electric industry toward dangerous ground if you work for a so-called super standard of safety instead of bending your energies to strengthening the National Electrical Code so that it will always represent a full measure of reasonable safety that will shield your wonderful product from the possibility of becoming a notorious firebrand. There is no parallel in the safeguarding of fire hazards in any other line of business to compare with the dual standard of safety as proposed for electricity. You would at once be confronted with the question, "Why the minimum standard if the super standard affords a measurably better degree of safety against fire?" Inevitably any admission that the difference in fire hazard is measurable amounts to a confession that the minimum standard is too weak, in other words that it is sub standard.

You are proposing to risk the good name of electricity as a safe product to bring about a condition whereby the fire insurance companies will finance the purchase of really safe installations. A most unwholesome situation for all concerned.

Reference was made by Mr. Comstock to the fact that whether or not standards of construction should be made by the Underwriters, as they are now, is excluded from this debate. I am perfectly willing to exclude that too, because they are not made by the Underwriters.

This National Electrical Code is made by you gentlemen, by representatives of the Bureau of Standards, by representatives of the Municipal Inspection Bureaus, and by Underwriters. Thus it is by no means made by the Underwriters alone. I might say that it is now under the jurisdiction, and has been approved and promulgated, by the American Engineering Standards Committee.

Arguments From the Floor

THE PRESIDENT: I am sure that we appreciate Mr. Stewart's paper. The matter is now open for discussion and we would like to hear from anyone present, whether a member or not, on this subject.

The debate from the floor will commence with a discussion on the affirmative side.

I might say that we have present representatives of the National Electric Light Association, and Mr. Wheeler is here representing the Electrical Supply Jobbers Association.

MR. WHEELER, Rochester N. Y.: Mr. President, Ladies and Gentlemen: The Electrical Supply Jobbers Association, at an Executive Committee meeting in Rochester in September, recognized an invitation from your secretary, Mr. Johnson, to have members of our committee present at this meeting. They therefore appointed Mr. Craighead of Cincinnati, Mr. Graham of Washington, and myself to attend, because this subject is so interesting to our Association.

Mr. Craighead, I am sorry to say, is in the care of a doctor, and cannot be present at this moment, but Mr. Graham and myself have been very much interested in the papers presented.

The reason why the Electrical Supply Jobbers Association is interested in the subject is because they have observed with alarm the disappearance of a demand for the quality of materials which their Association stands for.

This demand has given place lately to a demand for low priced materials rather than the grade that was in demand before the present high cost of building began.

There is a feeling that the electrical work, being one of the last jobs let, as a general thing, in a large construction job, and the owner already having spent more money than he intended to, does all his saving on the electrical construction, which necessitates the contractor going out and buying materials on cost, rather than quality, leaving the members of our Association without customers.

Mr. Craighead is the chairman of a committee in our Association known as the Committee on New Products and Policies, and we offer the facilities of that committee to

your Association, if there is any joint action required on this subject.

We believe that a job such as that described by Mr. Comstock, maintained in the same condition that it was turned over to the owner, should continue to enjoy a reward in the way of a reduction in insurance rate to the same extent that approved materials in the sprinkler system, wire glass and elevator enclosures, receive at the present time.

We believe that an important factor that enters into the cause of fires is the fact that most of the jobs, when they are completed, are turned over to maintenance men who are usually low quality workmen. A high grade mechanic will very seldom take a maintenance job because it offers no future, and in a few years' time the man who installs that work would not recognize it at all. In the meantime the inspectors have called regularly to see that the sprinkler heads were properly located, and that materials are not piled up against them, and that all other conditions relating to fire hazards are kept in the original condition. But the first inspection of the electrical job is the only inspection, and thereafter a super installation must be kept in that condition by calling on contractors to do the work with skilled mechanics rather than by the average maintenance man.

So we do not think that there will be a return of the demand for quality materials until some regard is given for the use of such materials. The only ones that seem to be interested today in a higher standard than the Code prescribes are those carrying their own insurance, such as railroads and government and state buildings. The specifications from such concerns have no relation whatever to the Underwriters' Code, and it must be significant, because of the fact that in most cases those concerns carry their own insurance.

Our Association stands ready, through our committee, to assist the electragists in any action they might want to take in the future on this subject.

THE PRESIDENT: I think, gentlemen, that we are getting out some facts. The next speaker will be on the negative side.

MR. J. A. FOWLER, Memphis: Mr. President, it creates some amusement among some of my friends that I should take the negative side upon this subject. But I have a reason. I don't believe in two standards. As a matter of fact we have two now—a minimum standard and a super standard. It doesn't say so in so many words, but it provides for the knob and tube work, and then sets forth specifications for all high type of construction, indicating that it is a higher type of construction, and one which is more safe than the minimum standard.

I don't believe that the speaker, who took the same side that I am appearing to take, intended to leave the impression that the losses in New York City, which occurred in standard installations, occurred in standard Code installations. They of New York, as you know, like many other cities, have gone beyond the Code, as far as minimum requirements are concerned.

They have used the super standard part of the National Electrical Code, as a minimum requirement for electrical installations. As I understand it, New York has a conduit ordinance, which has been in force many years—at least nine years. The same condition exists in other cities, where there are catastrophe hazards, like Washington, Chicago, Philadelphia, Boston and other cities.

So a standard installation in the city of New York would not necessarily be a minimum standard of the National Electrical Code. But it is the super standard of the National Electrical Code in which these small number of fires occurred.

I want to bring that point out particularly.

I am in favor of the National Electrical Code, if we can develop the minimum requirements of that Code, so that it shall be a super standard code itself. I think if we do that, we will be on the right path.

THE PRESIDENT: We will now hear from the affirmative side again.

MR. W. J. SHORE, New York: Mr. President, there is just one little point that I think might be of great value. Mr. Stewart mentioned the fact that most of these fires occurred in installations where there has been no inspection for a number of years, and due to that fact these installations gave trouble and produced fires.

It seems to me that one particular feature is a point in favor of super standard installation, for in the first place had the work been done as well as it could have been done, namely, in super standard fashion, there would have been a better grade of workmanship and a better grade of material used, and the fact that better workmanship and better materials went into the job would mean that those materials would serve their purpose for a longer time and in better fashion than if they used minimum requirements.

It seems to me that it is a very important factor in favor of using better materials, due to the fact that inspections cannot be made frequently enough to check up the poorer classes of material and workmanship.

THE PRESIDENT: The negative side will be presented by Mr. Canada of the National Electric Light Association.

MR. W. J. CANADA, New York City: Mr. President, I believe that this is a particularly interesting topic, but I notice that there is a little tendency to overlook the one feature which seems to the lighting companies whom I represent to be of considerable importance. That is that of the fires which we are considering, and which was not completely brought out by Mr. Stewart in his negative presentation, the larger loss is from appliances—from the misuse of appliances; and I think we may as well say, particularly the heating appliances.

The use of heating appliances is one of the great advances in the utilization of electricity.

Appliance fires—misuse of appliances causing fires would be much more descriptive—have been classified for a number of years as electrical fires. Probably that is an error. It may not be an error from the standpoint of the extent to which it tends to induce more

care in electrical installations, the use of better appliances, but it is an error if it leads to misjudgment as to what are the actual causes of fire, and the actual benefit which would be derived by improving standards.

With regard to another point—the use of two standards governing any one subject: It has been the experience of all kinds of arts that the use of two standards is very confusing, and difficulties are certain to ensue in an attempt to choose between the two—to conduct work in accordance with one, and maintain and make repairs and extensions, in accordance with another.

If, as has been stated, in New York that carefully analyzed list of electrical fires represent something near the average—and from what I have observed of fire statistics, it seems to represent something like an average—the actual losses in well inspected installations total something like five percent of the total fire losses—which constitutes the whole fire rate—and if of those only twenty-one percent, or about one and a half percent, represent the losses where the inspections are maintained properly, and only, we will say, fifty percent of those represents fires from electrical causes—installations and not as against appliances—which apparently must be handled in another manner—then the reduction of that item to a considerable less than one percent would appear to be about correct.

Now the amount of expense that it pays anybody to go to to effect a saving of one percent, or half of one percent of loss—which this probably is—is an amount that is limited.

It is not wise to expend large amounts in construction and so forth—greater amounts than will be warranted economically by the saving which will occur.

It would appear to be better to follow two courses—one, to improve the present Code in those respects where actual fires are found to occur in considerable numbers over the whole United States, by the failure of the Code to meet the hazards; and, second, to endeavor to improve the inspection situation in many places. And I might say that it appears to us to be most places where inspection has not been sufficient to assure that the installations as they go in are in accord with the Code, and particularly not to assure at all that they stay in accordance with the Code, and if possible to make that inspection in some way cover the misuse and the addition in a wrong way of appliances, because we

all know that that is the point of principal attack for the fire hazard.

THE PRESIDENT: The affirmative side is next in order. Mr. Hale, the present chairman of the Wiring Committee of the National Electric Light Association, will now take up the discussion, and he ought to know something about this subject, and we believe he does. I take pleasure in introducing Mr. Hale.

MR. R. S. HALE, Boston Edison Company, Boston: Mr. President, I agree with Mr. Stewart in his remarks in regard to the two standards, when he told us that knob and tube is safer in some cases, and in other cases conduit is better.

THE PRESIDENT: Mr. Peet will now speak for the negative side.

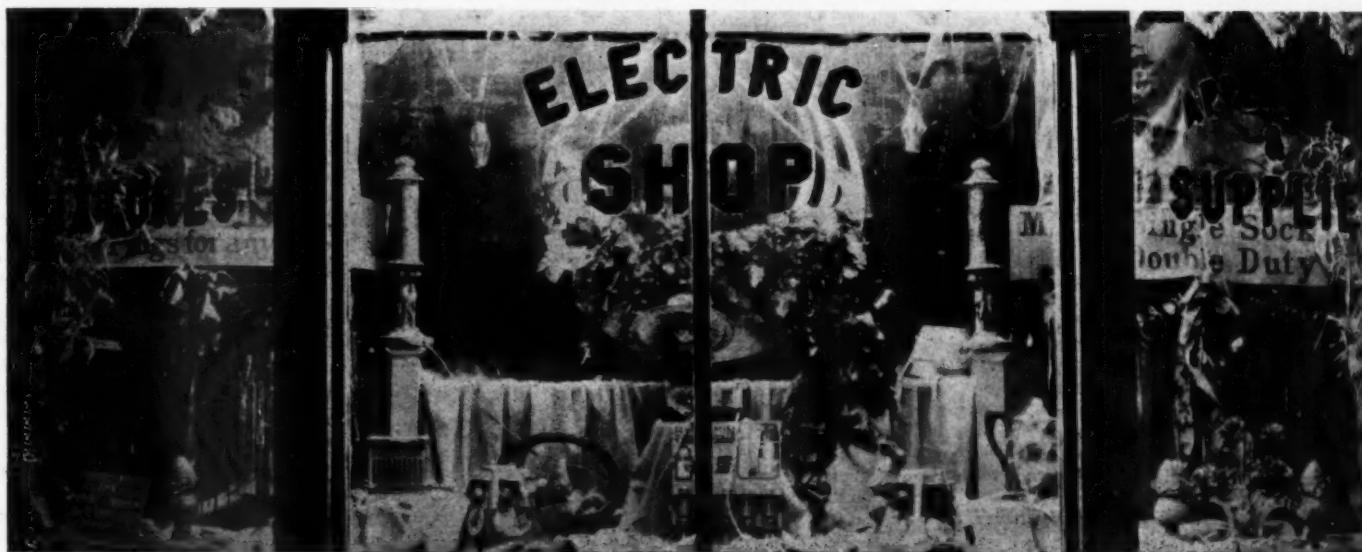
MR. W. C. PEET, New York City: Mr. President, I have very little to say. I am taking the opposite side from Mr. Fowler, because I want to say the same thing he did.

I think that we have become a little bit confused here. It would appear that we are asking for a new Code—that is to say, a whole new book. I do not so interpret this resolution, that that is precisely what we have before us here.

I recently happened to be the chairman of the building committee that had charge of the building of a schoolhouse, and our insurance broker came out from New York and gave us a booklet of three printed pages, setting out things on which we could get reductions in our insurance rate, if we followed them out.

Mr. Stewart seems to think that we will create a bad impression in the public mind if we give out the idea that one kind of electrical installation is better than another. We have say three thicknesses of brick walls in a building, but it certainly isn't going to scare anybody out of building a brick building because they can have a wall of twelve inches or fifteen inches. It was the same thing all the way through that list of things, and I was particularly interested in reading those three pages to notice that there was no mention of any electrical device, or any method of installation of electrical devices, or of any material that should be used in electrical installations that would in any way reduce our rate. We could put in any kind of an installation that was permitted by the Code, and we would get exactly the same rate.

Now they have specifications in the Underwriters' Code, for doors and walls and so on, and they also give you credit if you do it in



A Catchy Appeal is Made in This Balanced Display and Although Few Electragists Have as Large a Store Front as Has the Seger Electric Company of Edison Park, Chicago, the Same Effect Can be Secured in Smaller Windows if the One Idea of Balance is Kept in Mind. This Trim Won Fourth Prize in the Benjamin Two-Way Plug Contest

a certain way. Yet I think this idea of terrible extra cost is all bunk, as Mr. Eidlitz would say, because the inspector, if he inspects the building properly, can just as well see that the higher grade of material is used as the cheaper grade and it cannot be possible that every system of installation that is permitted under our Code—which is a wonderful document, and has been worked out from years of experience—offers exactly the same value or risk in insurance, because it does not.

I know when the Code was made up I happened to serve on the Code Committee at one time, and there was a great deal of discussion as to whether one thing was just as good as something else, and if they think it is just as safe as something else, they put it in, but it may not be as safe as something else.

I think it is perfectly feasible to get the Underwriters, with the Code Committee, to decide that certain materials are better, or offer less risk than other material, just exactly as they did in those three pages I told you about, which contained all sorts of things that enter into a building, and if used they gave a reduction in rate. But they gave no reduction in the case of electrical material.

MR. LOUIS KALISHER, Brooklyn: I think the Chairman opened the door for a straddle, when he said a man talk either in the affirmative or in the negative.

Take the word "feasible"—I desire to talk on the subject from the standpoint that it may be very desirable, but not feasible.

It is desirable because a contracting firm may sell the ability, the experience and the knowledge of the line of business that the work is to be installed in, as we all know that a particular class of business requires certain installations.

I believe, with Mr. Shore, that a great deal of the trouble is that the mechanical ability of the firm installing these various scheduled materials is not recognized by the inspection department.

The owner is interested in continuity of operation, which the contracting firm can sell—based upon their knowledge of the business—and of the customer's business.

I don't believe it is feasible because of the effect on the rates of a nearby hazard installation. We may have a super standard installation in this building, and a hazardous one next door, and it will not reduce your rate on your building, because of the fire hazard next door.

I don't believe a super standard can be enforced, because the Underwriters have no police power to enforce it.

I don't believe you can sell it to the public, because, as Mr. Hibben of the Westinghouse Lamp Company says about the camera of the eye, the public can readily see wire glass, and the fire door, and a few other visible evidences of what an increased insurance rate might mean, if they did not exist. It doesn't require any particular technical knowledge to see that a fire door is better than a non-fire door building, or wire glass better than non-wire glass. The electrical installation has not the advantage of visibility.

And finally I believe it places too much power in the hands of the individual inspector, when it comes to an interpretation.

And further—and I don't know whether I am stepping on anybody's corns or not—I will say that the best installation is only as good as the poorest appliance connected to that installation.

THE PRESIDENT: Is there any further discussion?

MR. ERNEST MCCLEARY, Detroit: Mr. President, I would like to take the negative side in this very much, but I am forced to take the affirmative, and the reason for that is be-

cause, if the Underwriters do favor the super standard, they have got to do that which they have never been willing to do up to date—and that is, set forth that which they consider the best method of electrical installation.

From my experience on the Code Committee of several years I found that was a problem, and I found that one of the greatest obstacles to progress toward a higher standard of work—super standard—was the National Electric Light Association representatives.

I say that, Mr. President, in the most liberal spirit and without criticism. I always understood the reason why that was, and I always respected them, and never opposed them in arriving at a conclusion.

I regret that I did not receive a copy of the new Code in time to have it for the purpose of studying it here. Those of you who have the new Code, I would ask to turn to the new Section 1802. There is not a contractor in this room who could consistently and conscientiously recommend an all metal job under that section. It would be totally improper, short lived, and would not represent a super standard. So that in arriving at a super standard condition, you would have to take into consideration those things which do represent the highest standard of the installation.

As far back as 1902 I stated that I could see a mental picture of the future, when we would go to the bare return wires, that we would have a solid neutral or negative wire, and that we would use every piece of metal in the structure for our return circuit.

I was laughed at. Well, you are coming to it, and the only thing that would make me hesitate today to come out solidly for an all metal installation is my absolute knowledge of the instructions given by the water companies, the gas companies, in a great many sections of the country, to their employees, to cut every ground connection that they find attached to their systems. That is something you must oppose before you can set up an all metal installation as super standard.

I have some sympathy with the Underwriters, but not much—very little when they come to us with a plea of economy in operation.

I cannot within my memory recall the failure of an Underwriting company, excepting following such catastrophes as occurred in San Francisco and kindred occasions, because their rates are right and they pay good dividends. They are in the class which Mr. Eidlitz tries to put us in when he says we live too well. And they will get a return when they start to do with us as they used to do, in the days when I served on the Code Committee, when they would make a difference in your rate if you drove a nail through a fire door, because they argued that it caused heat induction.

If you are going to sell your proposition on the basis of a super standard, you will see that it is properly inspected, and that your customer gets due credit.

So I am not going to confine my remarks to New York, nor am I going to take you to my home city, but I shall take the position that I have always tried to maintain, representing the United States and Canada, from an international standpoint, and if I have the figures correct, the last report of the per capita fire loss as I remember was 3.58 per capita in this country.

I consider Mr. Canada one of the best informed men to speak on this subject. It has been my privilege to work with him on the Code Committee, and he knows that if his deductions are correct, five percent of those inspected jobs represent a part of those losses.

Then what have we got on the inspected

losses that occur today, according to this testimony? We have 17.9 losses per capita on inspected installations—electrical fires—in this country.

You, gentlemen of the jury have a big problem before you to say that the time is not right for us to establish a super standard.

I see the Chairman holding up his finger, and I am ready to rest right there. I could tell you a lot more.

THE PRESIDENT: Is there any further discussion?

MR. WM. A. ROGERS, Washington, D. C.: I would like to say something in connection with this. Every one of the remarks made in this debate lead to the one cause, and that is the lack of inspection. That seems to be the source of the whole trouble.

The Code today, if it were followed as prescribed, would cause us no trouble, if we had proper inspection, which we do not have.

We should have inspection not only at the finale of the job but throughout the job, and there should be inspections made as the fire department makes them, going through the cellars, and poking around in out of the way places to see that stuff is not so placed as to cause fire hazards.

Apartment houses and so forth are inspected for other lines, but they don't inspect them for electrical installations. As Mr. Kalisher has said, the super installation may be there, but who put the fuse in, who puts the pennies under the plug? The home folks and the neighbors do that. There is no telling what the carrying capacity of a penny is, in a fuse plug, with an iron behind it, with a cook stove unit on it.

Those are the things that cause fire hazard, and whether the Code be super or otherwise, due to the lack of proper inspection it will do us no good. If the half of one percent that is to be gained by the super installation were used for proper inspection purposes, such as the government furnishes, we wouldn't have any competition of the order which this super installation is supposed to take care of. The competition today, except in government installations, is unfair, due to the lack of proper inspection.

THE PRESIDENT: Now, gentlemen, opportunity is offered for those who opened the debate to sum up for a few moments, if they wish to do so. Mr. Stewart, we will hear from you, if you have anything to say in closing.

MR. STEWART: Yes, Mr. President, very briefly. There were one or two points to which I wish to refer.

I am glad to see that the importance attached to the need of the best possible inspection has been recognized by a number of the speakers, and to whatever extent the Underwriters may be responsible for any deficiency in that direction, we are willing to admit and get together with you, or anyone else interested, to see how we can improve it.

There is not the slightest doubt in my mind that there is where the opportunity for improvement lies. There is where eighty percent of the electrical losses are coming from.

When Mr. McCleary spoke about Mr. Canada's reference to five percent, if I understood him correctly, he included everything, including the eighty percent of losses which are due to defective installations, and did not feature the twenty percent that might be chargeable to standard equipments properly maintained.

The reference to the nail in a fire door, or the lack of it, I don't think is quite as the statement may have been understood. I am familiar with that particular point that was referred to and that feature of detail in the construction of a fire door, and it was decided that that type of a fire door should be made a disapproved type. That is, if you got ten percent for the fire door that con-

formed to the detail in the specifications, if it was defective in that respect it would get nothing.

As the statement that the alleged confusion is all bunk—I think if you gentlemen could sit in our places for a while you would soon realize that that is not the case.

I might reiterate once more that we should distinguish between fire hazards and fire protection appliances. The city and the state are bound to protect citizens against loss of life and property and against fire hazards, and it is our duty to see that we do everything to uphold high standards, even going at times a little bit out of the strictly insurance consideration in order to harmonize and work for the public good.

For that reason, the Code intended to guard against electrical hazards should be a high one, and there should be no room for super standards. As I said, if there is to be a measurable difference between the two standards, it is perfectly obvious that the lower one is a dangerous one for the city, and especially for the insurance company to recommend to anybody.

THE PRESIDENT: Mr. Comstock was obliged to leave in order to catch a train, but opportunity is offered to anyone who cares to speak and sum up for the other side.

MR. McCLEARY: Mr. President, I am particularly glad that Mr. Stewart brought out the point that I wanted to bring out, about the nail in the fire door. He has gone further than I dared to suggest. He has absolutely given you no credit for the fire door with a nail in it. In my day there was credit given for the difference between a fire door with a nail in it, and one that didn't have a nail in it. Now he eliminates that, and puts us down to the lower standard.

Gentlemen of the jury, we want some line in which we have reached a parallel of one hundred percent just the same as the ratings are made today—one hundred percent is the parallel line. If you do it better than this you put it into the super class, and you get an additional eight percent. If you do it with a fire door with a nail in it, you get no credit, but you go into the minor class, and you get one hundred, less ten, which is ninety, and then after you get through with all the ratings, you make the rates.

What we want is an opportunity to install a safer standard. And to go back eighteen years ago, when I criticized a leading authority in Boston, he replied to me and said—and I have never forgotten it, and I want to close these remarks with this thought: "Will your organization take the responsibility for the action of your members? Will you take the responsibility for failure to take that joint action? Will you take the responsibility, when you called next door, where your neighbor has had a fire, of saying to him, 'Neighbor, I am sorry, I am deeply grieved because the ashes of your dear little golden haired girl are mixed with the ashes of the ruin of this building, but I want to say to you that I am not responsible. I did the best I could. I have followed the Code instruction the best I could?'"

Gentlemen of the jury, I ask you to make such a decision that I can walk next door to my neighbor, after I have finished his job, and say to him, "I have given you a super construction, and I accept no responsibility for that little girl's death."

The judges retired at the close of the debate and after a brief consultation they rendered their decision as follows:

"The judges agree that the arguments indicated the desirability of a

rate reduction for electric installations above minimum Code requirements, but that the feasibility of such a plan was not proven."

Clara May Coleman

BY LILIAN CASSELS

President of Red Top Electric Company, New York, Had Interesting Career

One year from the time she was asked to manage the affairs of the Redtop Electric Company, Inc., of New York City, Clara May Coleman became the president of that growing concern. During the five years that have followed she has taken over so many responsibilities that Albert Fries, general manager and principal owner, says he is delightfully useless around



Clara May Coleman

his establishment, as members of his organization have formed the habit of going to Miss Coleman for guidance—and getting it.

Miss Coleman came to the United States from England for a short visit, because she had nothing else to do. She began working for a man whose office affairs were in need of a manager, intending to just put him straight and then return to her native country. But as her qualifications unfolded, she became fascinated with business life, and made up her mind to find a larger job. That job proved to be one which sought her several times before she could be made to believe herself strong enough to tackle it: the one in the Redtop organization.

Mr. Fries persuaded Miss Coleman that she was capable of managing the offices of this manufacturing company, and she plunged in, though every detail of the business was to her as un-

chartered as were the seas Columbus sailed. The owner desired to be relieved from active management, having other interests which required his attention. He sensed irregularities in Redtop affairs, but could not take time from those other interests to reorganize. With a faith in woman's honesty and grasp of detail which appears to have been heroic, Mr. Fries, after Miss Coleman had worked for him less than two months, placed in her hands the full management not only of his business office but of his factory, and went away on a vacation.

"If I had not done this," he commented, "she might have been years learning what she was forced to learn in a few weeks. And thrust thus into direct contact with all details, she learned also the things I had been desirous of uncovering for some time—and thereby saved me many thousands of dollars."

There was turmoil of several distinct varieties when men who were at the heads of various departments found themselves suddenly expected to take orders from an outsider. The fact that that outsider was a woman may not have retarded the discord. Dissatisfaction grew into insubordination, and after five weeks at the helm, during which time she decided on many radical changes, Miss Coleman found herself powerless to effect the desired reorganization because her subordinates flatly refused to obey instructions. She held the deadlock which ensued, although threatened with violence, at a high nerve tension for some weeks, until a confidential secretary wired Mr. Fries that the situation was dangerous. Upon his return her decisions were upheld and her rule enforced. This was the beginning of the successful methods of management which led to her present position.

Buying and selling, credits, details of design and manufacture, employing and discharging men and women, establishing agencies, advertising, all the big things and all the little things that go to make up the daily grind of a manufacturing concern, come under Miss Coleman's jurisdiction. With all the gentleness and sympathy which tradition associates with the fair haired women who represent England's generations of gentlefolk, she has yet placed upon the organization she directs the imprint of a character of unusual firmness and efficiency.

"What," Miss Coleman was asked, "is

the greatest handicap women have in taking jobs such as yours?"

"That which is also their greatest asset," she replied. "It is a problem of feminine insight."

"Women have infinite capacity for detail; for attending to little things; ferreting out deficiencies, fitting things together, harmonizing, coördinating; for seeing that materials measure up to requirements; that letters get written on

time; yes, that inkwells get filled and waste baskets emptied.

"This qualification, properly used, is what makes for success. But unless a woman watches herself she is likely to hold these things so close to her eyes they obscure her breadth of vision—and she misses her bigger opportunities."

"It is necessary, if a woman is to manage a business, that she learn all the

details of that business. But she must learn also to leave the performance of those details to subordinates. The inclination she feels to do things herself must be continually checked. She must learn values; learn that others can do some things better than she herself—and do them far more cheaply. If she is going after big things she must let others do the little things. This is the measure of success."

Motion Picture Teaches Electragist Standards

Film Produced by Westinghouse Lamp Company Portraying Value of Sound Business Principles is for Free Use

[NOTE: As this film will be in wide demand it is urged that arrangements for showings be made as far in advance as possible. It is especially recommended for use in meetings of local and state bodies of electrical contractor-dealers, electric leagues and clubs, and similar organizations.—The Editor.]

Realizing the importance of training electrical dealers to be good merchandisers, the Westinghouse Lamp Company decided to produce a motion picture film that would carry the message to the dealers and to others interested in the electrical industry. A study of the past record of business films showed clearly their lack of human interest, so "Show 'Em How," its name, was planned to combine the merchandising message with the human interest factor that would appeal to the dealers and put the story across more forcibly than thousands of feet of straight instructive film could do. The picture was therefore created around a scenario,

and that—even without the merchandising message—would stand alone as a film. The picture was made by the Pathscope Company of America, and a cast of professional actors and actresses selected to run as true to type as possible.

The film begins with a foreword, which explains briefly the history of commerce and the purpose of the picture, as follows:

When a man's requirements were simple, when his manner of living was crude, the common necessities of life were obtained through barter.

With the establishment of communities, barter became inadequate, and the trader made his appearance. But as the communities grew and expanded, the trader found it more and more difficult to carry his goods from place to place. So he selected a central location and established a trading point where producers and consumers could sell and buy. Thus the store came into existence.

The modern store is a development out of the simple past into the complex present day system of distribution. The better class of stores today stand as monuments to the diligent study and untiring energy of those men

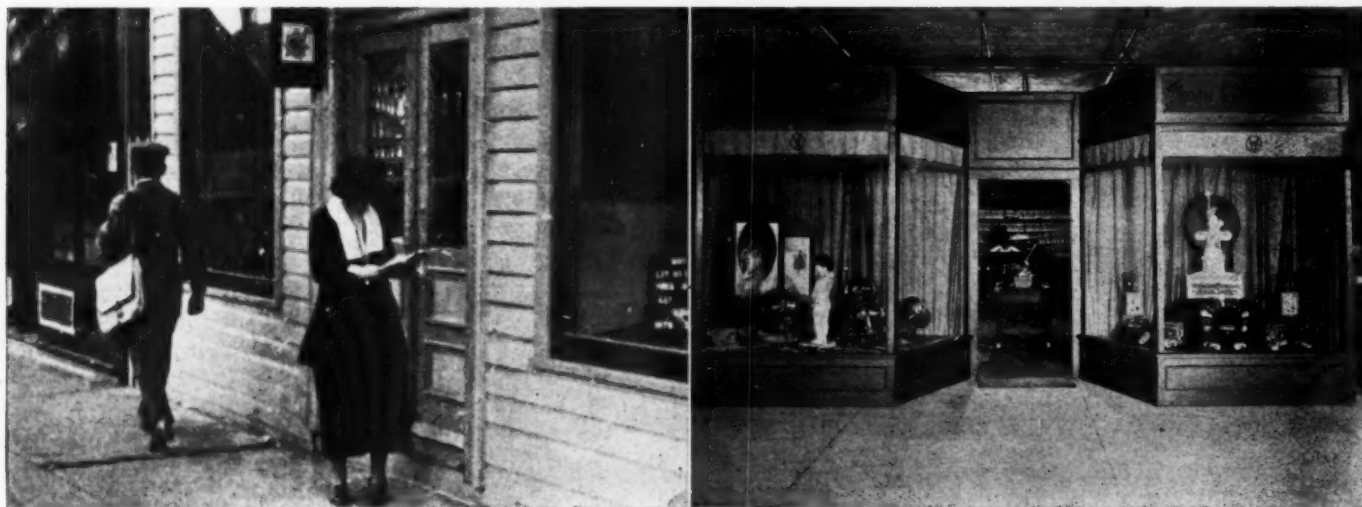
who have striven to render humanity daily the highest type of service.

If this picture inspires you to a more active and intelligent thought in the conduct of your business, if it stimulates your desire to promote your business more aggressively, then it has accomplished its purpose.

The story is of James Perkins as a small town electrical dealer. The picture starts with Jim just opening up in the morning. His store is a typical old fashioned electrical dealer's establishment, with narrow show windows set too high, and a step up to the clumsy double door.

As Jim unlocks the door, a neighbor approaches, talks a few minutes, and asks how business is. Jim's face becomes serious as he answers, "Not so good."

In a few minutes Joan Gregory, Jim's fiancée, comes along, and at the door she meets the postman. She takes Jim's mail from him, and shakes her head as she sees the collection of bills. Entering the store, she looks around



Left, Jim's Fiancée While Awaiting His Arrival Outside His Store of Gloom Receives the Morning's Mail Only to Find it Filled with the Usual Number of Bills. Right, The Same Location a Few Weeks Later—Jim Has Had His Dream and Has Taken to Heart the Advice of the Jobber's Salesman

for Jim, who is nowhere to be seen in the disorderly place. Cartons, barrels, and lengths of wire litter the store, while the stock is piled haphazardly on the unpainted shelving and in corners. The walls are adorned with out of date posters and announcements, torn and dirty.

Joan discovers Jim in the back room, busy tinkering with a screw driver on some part, so she hands him his mail and stays a few minutes to talk. Jim, in his dark flannel shirt, open at the neck, and a pair of khaki trousers, is far from a neat figure, but his garb goes well with the character of the store. He looks at the mail and remarks that while his motto is "Get the money," all he seems to get is bills. Joan cheers him up as well as she can, but the expression on her own face is rather dubious.

As the day goes on, various ways in which lost sales are shown. Jim gets increasingly discouraged, but while he realizes that something is wrong with his methods, he doesn't fully appreciate why he can't make sales. A matronly lady comes in to buy an iron, and the sale progresses nicely until she asks how hot the iron gets. Jim demonstrates by spitting on the hot iron, which so disgusts the prospective buyer that she departs disdainfully. While Jim is busy trying to figure out some of his bills, another customer enters, and after a wait of some minutes, succeeds in attracting his attention. She is interested in a vacuum cleaner, but Jim's clumsy demonstration with a small rug which pulls and curls up is not very satisfactory, and when he inadvertently covers her with dust in

showing her how to remove the bag, she indignantly departs. He loses an electric range sale because he knows practically nothing about the range himself, and after listening to his halting sales talk for a short while, the prospects, a welltodo man and his daughter, walk out on him. A washing machine sale is lost in a similar fashion. A customer who wants Mazda lamps is sold one lamp, with no attempt on Jim's part to sell him a carton of six. Then the customer loses his temper trying to write a check on the counter with a rusty pen, while he straddles some boxes and junk lying in front of the counter.

A load 'em up salesman calls to get an order, but Jim tells him that he has more than half of his last lot of goods left. Nevertheless, the salesman coerces him into buying more on the promise of an extra thirty days, and Jim foolishly consents.

After a thoroughly discouraging day, Jim and Joan go for a walk out into the country. Joan does her best to cheer Jim up, telling him that everything will turn out all right. As they stroll along the country road they spy a lovely little bungalow, exactly what they have dreamed about. Joan draws a beautiful word picture of how happily they could live in such a home, and Jim resolves that he will get a similar one somehow.

A few days later the Show 'Em How salesman comes in to see Jim, and brings with him specifications and layout for a model store. He tells Jim he will be back in an hour, and suggests that the latter study the plans so they can discuss them when he returns.

Jim sits down among some boxes in the back room to study the plans, and in the quiet room, undisturbed by customers, he falls asleep. He immediately begins to dream of a model store, conducted by himself. He recalls the sales he failed to get, and in his dream sees the same transactions properly handled. In his model store business is excellent, and several clerks are required to handle the trade. Appliance demonstrations are properly and efficiently made, and orders are quickly secured.

On his return the "Show 'Em How" salesman finds the store deserted. He pounds on the counter and shouts for Jim, who wakes with a start, and comes out from the back room, looking rather sheepish, and protesting to the salesman that he woke him out of a wonderful dream. He tells the salesman about the dream, and the latter points out that it could be made to come true if Jim would only follow the plans he gave him.

Joan comes in, and they explain the idea of remodeling the store to her. She is very enthusiastic about the plans, and she and the salesman persuade Jim to try to borrow the necessary money to remodel the store from the bank.

Jim and the Show 'Em How salesman visit the bank, and with the salesman's help Jim succeeds in convincing the banker that a retail electrical store is a stable business if conducted along the proper mercantile lines. Accordingly the bank decides to lend him the necessary money, so Jim, Joan, and the salesman plan the remodelling of the store.

One year elapses. Jim's store has



Left, Joan Views the Neglected Store From All Angles and Prepares to Lay Before Jim, Who is Endeavoring to Make Good on a Motor Repair Promise in Another Room, Plans of a True Electragist's Store Arrangement. Right, Jim Wonders How His Business Could Be Anything But a Success Under the Management of the New Happy Partnership

been transformed into an attractive, well arranged establishment. The wide, modern show windows contain excellent displays, and people constantly stop to look at the merchandise displayed; in many cases they enter the store to buy. Jim, neatly dressed, and wearing a cheerful smile, is keeping things running smoothly, while Joan is seen busy making a sale to two women customers.

The sale completed, Joan comes up to the front of the store, where Jim has just been giving some advertising material to a departing customer. Together they read a letter from a wholesale distributor, congratulating them both on the success of their venture. From the letter one learns that they are married.

The last scene is when Jim comes home to his new house, the exact duplicate of the bungalow they had so admired and wished for a year previous. Joan, who was already home, comes out to meet him. They sit together on the steps for a few moments, talking about their success and their plans for the future.

And thus ends the story.

"Show 'Em How" requires about thirty-five minutes to show, as it consists of two reels of film. The Westinghouse Lamp Company gladly offers the use of it, without charge, to any organization in the electrical industry, the user merely to pay the express charges both ways, and to return the film as promptly as possible. It can be furnished in either Pathoscope or standard film.

How to Manage Men

If you wish to test yourself and measure your ability to manage men, ask yourself these twenty test questions, printed in the *Efficiency Magazine* of London. If you can honestly answer "Yes" to at least ten of them, you can claim to be an efficient manager.

- 1.—Did you ever deliberately decide to break yourself of a habit, such as smoking, and succeed in doing it?
- 2.—Do you control your temper and not fly off the handle when things go wrong?
- 3.—Are you usually cheerful and free from grouchy spells?
- 4.—Do you think for yourself and not let the opinions of others unduly influence you?
- 5.—Do you keep your head in an emergency?
- 6.—Do you remain calm when your

own mistakes are pointed out to you?

7.—Do your men respect you and cooperate with you?

8.—Can you maintain discipline without often resorting to the use of authority?

9.—Have you ever been selected to take charge of a group of dissatisfied men because of your ability to handle men?

10.—Can you adjust a difficulty and retain the friendship of the person with whom you have differed?

11.—Can you get men under you to do things without irritating them and causing them to be resentful of your authority?

12.—Are you patient when dealing with people who are hard to please?

13.—Can you meet opposition without becoming confused and saying things you wish afterwards you had not said?

14.—Are you sought out by your friends to handle delicate situations because of your ability to do such things?

15.—Do you make and retain friends easily?

16.—Do you make it a rule not to quarrel about petty things?

17.—When thrown with a group of strangers, do you adjust yourself easily?

18.—When talking to superiors, do you feel free from embarrassment?

19.—When interviewing subordinates, do you put them at ease?

20.—Are you able to express your

own ideas without causing others to feel that you are overbearing and narrowminded?

Electragists Attention

Try out this novel stunt on a list of your select prospects:

A western man, in starting a hat store a few years back, tried a rather startling method for bringing in customers, writes Fred Kelly in *The Nation's Business*. He printed the name and address of his store on the corner of business envelopes of high quality, and he also printed the line: "Best Values in Men's Hats." Then he got a list of all the members of the various clubs in town. He sent each one of these an envelope by special delivery mail. The envelopes were all entirely empty.

The next morning the hat man did nothing but answer telephone calls from one man after another who wondered what the letter was that he had neglected to place in the envelope sent with a special delivery stamp on it.

"How did you know I sent it?" the hat man invariably asked.

"Because your name was on the envelope."

"Did the envelope say I gave the best values in men's hats?"

"Yes, that was on it."

"Oh, well then, never mind the letter. In fact there wasn't any letter. I just wanted you to know I can sell you hats cheaper than anybody else."



—Courtesy P. A. Geier Co.

A Suggestion for the Background of a Simple Cleaner Display—Inexpensive and Effective Because of the Crepe Paper Designs Used

Important Factors in House to House Selling

These Extracts From N. E. L. A. Convention Report
Tell How to Plan Work for Successful Results

House to house selling while an old art has no descriptive terminology or standards of practice. The Committee has found itself handicapped from lack of vocabulary and has been forced to coin descriptive terms and phrases.

In developing information on this subject the Committee has been in touch with the Department of Commerce at Washington, the Federal Trade Commission, Harvard University Business Extension Bureau, the Northwestern University, Bureau of Business Research, the insurance companies, book companies, specialty house to house selling organizations both in and out of the electrical industry.

First, in making out a sales compensation plan a fundamental fact to consider is the question of drawing account. Will the salesman finance himself or will the company underwrite all or part of his operations? A certain length of time is necessary before any new man can earn a living wage regardless of the man's ability. It is also true that with an established salesman there are lean weeks or months during a year's cycle. A straight salary basis is the maximum drawing account arrangement. It is now an accepted principle that every salesman is on a commission basis even though paid a straight salary. No matter how arrived at, sales costs must bear their proper relationship to gross income if profits are to be made. A salesman's salary and expenses must eventually be figured as a percentage of sales, and rewards paid accordingly.

Amount of Cash to Advance

The real problem is how much cash to advance, if any, in anticipation of future sales. There are two sides to this problem, the company's and the salesman's. The company must consider first that the salesman may not make good in which case all moneys advanced are wasted. This is a business risk which the company does not face if it operates on a straight commission plan. However, the company cannot so closely control activities of new men when they operate on straight commission and there is the practical danger of the salesman misrepresenting the merchandising and the company's policy in his anxiety to close sales. This makes for public ill will

and kills the development of new prospects. To overcome this objection to the commission plan, the company must have strong sales management, a sales plan and policy that is worked out in minute detail and actual field supervision by experienced men. This costs money and is apt to make for a high sales overhead expense.

The next factor is the possible dishonesty of the salesman. There is a small army of specialty salesmen who float from job to job. It is standard practice among some of these men to get cash advances and then if sales do not materialize as quickly and as easily as anticipated they fade from the picture — whereabouts unknown. It is fairly easy for a company to be fooled by these men as they are plausible talkers and some of them are whirlwind salesmen — when they will apply themselves.

Kinds of Soliciting

This brings us to the third and most important factor to be considered in this report; to wit, the different kinds of consumer soliciting required to sell electrical merchandise. As a practical sales matter it is a long haul from peddling flatirons and vacuum cleaners door to door to the negotiations involved in the sale and installation of a domestic ice making machine in the home of a leading citizen. The type of man who can peddle flatirons is not the type of man who can obtain the proper entree and sell the big idea of domestic ice making to the leading citizens of the city.

As the Committee views the problem, there are two kinds or types of consumer selling as applied to electrical merchandise. First, house to house peddling or canvassing with popular priced devices like flatirons or such well known and easily demonstrated appliances as vacuum cleaners. Second, for want of a better name what might be called: Negotiation Soliciting. This covers the selling of higher priced items such as washing machines, ironing machines, ranges and domestic ice machines or locally unknown merchandise.

With house to house soliciting the outstanding sales factors are first, the total number of calls that are made by the salesman each day. Second, the salesman's skill in telling a short story

at the front door to get attention and interest and the opportunity to demonstrate and show his device. Third, ability to make a convincing demonstration. Fourth, a willingness to ask for the order. Fifth, a persuasive yet courteous manner in meeting objections. Sixth, personal qualifications that include persistency, vitality, enthusiasm, a thick skin and a reasonable amount of native courtesy, plus honesty.

The factors in Negotiation Soliciting are; first, the selection of the right people to call on based on their domestic problems, their financial set up and their influence in the community. Second, the proper introduction or stage setting before undertaking the sales talk that definitely leads to a demonstration. Third, ability to make a complete educational demonstration. Fourth, skill in talking the financial phases of the transaction. This includes the money saving value of the merchandise in reducing labor and saving time; also the terms of payment. Fifth, skill in pointing out the social and prestige values that would result from the purchase. Sixth, closing ability. Seventh, personal qualifications that include analytical ability, an education and personality that will allow the salesman to mingle with all classes of society with a feeling of equality; a social sense; a respect for the job and an ability to make others respect it which means a standing in the community on a par with a good life insurance man or bond salesman.

The Fuller Brush organization sets 12 demonstration calls a day as the bogy for a day's work. This is a good average to use with house to house men. To make 12 demonstration calls a day, a salesman must face door bells nearly twice that number of times.

During 1922, vacuum cleaner salesmen averaged three machines a week, or a revenue of from \$30 to \$36 a week figured on a 20 percent commission basis. These figures represent a national average for all vacuum cleaner men working for manufacturers, dealers and central stations. The turnover, however, of vacuum cleaner sales was high, a national average probably of 100 percent a year. When you compare this with a yearly turnover of only 30 percent, which is the average for one of the largest insurance companies, the sales waste in our industry is apparent.

The insurance company mentioned has taken insurance out of the peddling class and made it a matter of sales negotiation. They have gathered to themselves a higher type of man who has a better standing in his community and they have made it easier for a good man to earn more money.

Must Pay for Ability

With our new and higher priced electrical devices where preliminary education and the details of financing are so important—we include washing machines and ironing machines in this group—why not make up our minds that we must pay for brains, aggressive sales ability and personal standing in the community? An average of \$3,600 a year is what this insurance company expects to pay for good men working in cities and towns that are big enough to have electric lights. Thirty productive calls a week is the average made by their men but two days each week are spent collecting; therefore only 7 or 8 productive calls are made each selling day. It is no longer a door bell pushing proposition. Prospects are selected carefully. The preliminary data shows that the prospects should buy insurance before calls are made.

The great value of Negotiation Selling is to place higher priced appliances in houses of influential people so that a maximum of repeat orders will develop. With these men the company invests in man power in anticipation of volume sales that will result from their preliminary work. In the larger cities some of the increased efficiency of the peddling crews who follow up after this introduction work is finished might well be credited to the Negotiation Soliciting account. This also holds for store sales.

As an old timer who has made a small fortune in the specialty game described it, "there is no money for a good man in massaging door bells compared with cultivating satisfied users. If you have the right product and are the right kind of man, you can develop all the prospects you want from users. Give them superservice and take an interest in them and they will give you the names of their friends and relatives."

This gentleman has outlined how a negotiation type solicitor can operate permanently in a large city building his prospect list as he goes along and confining himself to only one device.

An example: Given a town with 2,000 homes wired and no electrical dishwashers in use. Possibly a 15 percent saturation of washing machines, and a 36

percent saturation of vacuum cleaners and a 72 percent saturation of flatirons.

Negative Crowd Psychology

A door bell canvass of the entire 2,000 wired homes might produce 5 percent of sales with 95 percent of the possible buyers registering a definite no. In a small community the women discuss among themselves their front door experiences with canvassers. When the majority have said no to a proposition—a negative crowd psychology develops which is intensified by the fact that each woman knows that her neighbor has also registered in the negative. The costs to the company would have been high, and the returns to the salesman very low. On the other hand, suppose there were one high grade man assigned to the dishwasher. He knew his public and could get entree. This man would select 5 percent of the homes as his prospects and then set out and sell these homes. The people he selected would be community leaders. After the 5 percent was sold, dishwashers would be known and talked about. There would be a local favorable opinion about washing dishes electrically, as opposed to a wholesale community no as registered under the first plan.

When this special salesman's bogey is reached, the town is then ripe and ready for a doorbell attack. One of the big sales arguments being the local list of satisfied and happy users. Here we have a possibility of volume dishwasher sales, with the company making money and the salesman satisfied. The special man then moves on to another device.

Good negotiation salesmen, over a period of time, finance themselves and can be made to show a profit to the company, not only on the sales they make directly but from increased store sales. The specialties of yesterday are the staples of today.

Why are some of the large companies making such a success with vacuum cleaners? The vacuum cleaner is a known device. Nearly every woman would be glad to have one in her home. It is a case of making it easy for her to buy. This in terms of the purchase price, the physical effort involved in seeing a demonstration and listening to a sales talk.

Value of Advertising

An organized negotiation soliciting for vacuum cleaners in these cities is a thing of the past. As proof of this, newspaper ads with mail order type copy "so much down and so much a

month" bring public response. The vacuum cleaner men follow these leads. Negotiation salesmen are not needed when mail order type copy is found to pull. The good peddler with the snappy demonstration who is willing to work will clean up. The next step is the elimination of the peddler and a complete reliance on store merchandising methods to get the business. Newspaper advertising and window displays to get the public in; store demonstrations and clerks behind the counter to close the sales. There are people who believe that vacuum cleaners have in many cities passed the peddling stage, and that volume sales can be maintained without house to house sales work.

It is not the purpose of this report to debate that point. If it is true, however, that vacuum cleaner volume can be maintained without peddling, a lower sales cost to the consuming public should result.

In this sales cycle of an electrical specialty the proper introductory placing of the appliance has much to do with the time it takes for the specialty to pass through the educational or novelty stage to the canvassing period to over the counter distribution with a profitable volume.

With most central stations, if not with all central stations, the washing machine, the ironing machine, the dishwasher, the range and the ice making machine represent local sales problems that can be solved with negotiation type of salesmen. Each central station should develop a sales payment plan for these negotiation men that will attract real brains and ability. The Committee believes that the selling of these new electrical specialties should become a sales profession on a par with the best of insurance selling practice. What is being done today with house to house peddling crews is not a precedent. The two types of selling are different—each has its place.

How Movies Use Electricity

Not many years ago the sun was the only source of light used by the makers of motion pictures. When a cloud covered the sun, the cameras stopped, often for days.

The cost of keeping companies and stars waiting for the sun to appear led to experiments with electric lights, and today the hazards and delays of picture making have largely disappeared. Daylight, moonlight, firelight and almost any other kind or degree of light can be duplicated electrically.

Chats on the National Electrical Code

BY HUBERT S. WYNKOOP, M. E.

Monthly Discussion of National Electrical Code Practices by Well Known Authority in Charge of Electrical Inspection, City of New York

Attachment Plugs

We have not been able to get very far in prohibiting the lamp base attachment plug which permits connecting a 600 watt appliance to a 250 watt socket. I have been a strong advocate of the suppression of the 250 watt socket; but there are many legitimate objections to this. Now we are finding that care must be exercised to prevent the overloading of the convenience outlet rating which seems to run from 6 to 10 amperes. Why not require a heavy duty plug on portable appliances running above 6 amperes? This would result in the installation of a heavy duty receptacle (15 or 20 amperes).

Switching Sockets

Theoretically at least a key, push through or pull chain socket partakes of the nature of a switch. In practice, however, it has never been so classified. The intensive study which the new Code is getting is responsible for the suggestion that those switching sockets which break the leg leading to the screw shell—the grounded leg—be prohibited.

In the 1920 Code a single pole switch was not permitted in a neutral wire of a three wire system, "except in the two wire branch or tap circuit supplying not more than 660 watts." In the 1923 Code an effort has been made to pave the way for the single pole switching (and fusing) of two wire branch circuits by rephrasing the old idea. The old requirement is found in No. 24c, 1st paragraph, and the new in 1204a.

In the old Code, provision was made for the omission of insulated joints, when among other things "the screw shells of the sockets are connected to the grounded wire of the circuit." Nothing was said for or against the switching sockets under consideration, and no objection has hitherto been made to them, so far as I am aware, although the same criticism which is now raised would have applied under the old Code.

I have no doubt the Underwriters' Laboratories will take steps, if they have not already done so, to secure a redesign of those switching sockets which break the grounded leg. Mean-

while I presume we ought to accept the present approved product, as we have been doing for the past couple of years.

Identifying Fixture Wire

Approved fixture wire carries insulation which is either of rubber or is heat resisting. Section 601b calls for a white or natural gray covering for the identified rubber covered wire, but nothing is said as to the color of the covering of heat resisting insulation. It does not seem to be the practice to apply 601b to fixture wire.

Section 1402b requires that in wiring a fixture the wire or terminal "shall be marked in an approved manner." Underwriters' Laboratories inform me that, for both rubber and heat resisting insulations, fixture wire may be "marked in an approved manner" by placing a daub of black paint at the ends of the wire if the covering is white or of a light color, and the placing of a daub of white paint similarly if covering is black or dark color.

Identifying Conductors

In order to clear up what some consider to be an apparent discrepancy between 601b and 611t, in the matter of means of identifying conductors as to grounding, the following statement was obtained from a prominent authority:

Rule 601b definitely limits the requirements for an identifying marker in the insulation to conductor sizes No. 8 and smaller. It is not my understanding that 611t in any way modifies this. The identified wire is to be the grounded wire when one is grounded.

For larger sizes of wire other means of identification may be used and it will usually be sufficient to have this identification at the ends of the run and not throughout the run. Larger sizes of conductor will usually only be used for mains to distributing centres or to run from a distributing centre to a simple outlet or current consuming device.

Rosettes on Knob and Tube Work

What becomes of the rosettes, now that a box or plate is mandatory at each outlet? Well, there are I think large rosettes which are so deeply recessed that they may be set over the plate (if one is permitted) and yet afford space for splices and loom fasteners. Where a box is employed, the rosette may be of a design intended for mounting on the box cover, or of a

type intended to serve as a box cover itself. At any rate, the old, small, cramped rosette, set directly on the plaster, is *passe*.

"Outlets" on Branch Circuits

A correspondent writes:

The definition for "outlet" is of such a general nature that we hardly know how to interpret the twelve outlets per circuit rule. Suppose a contractor desired to wire around the edge of a showcase fixture in a store, using standard boxes and receptacles with 25 watt lamps in each, this form of lighting being more for scenic effect than general illumination; would you apply the twelve outlet rule in this class of work, or would you consider it one outlet and treat all of the lights as attached to a fixture, allowing 1,200 watts, or as the Code now states, 15 amperes on the lighting circuit?

Here we could hardly recognize the showcase fixture as a 20 light or 25 light fixture, and then allow 11 more outlets on the circuit; nor would it be fair to class each receptacle and its box as an "outlet," and require two or more circuits for the fixture. I think it would be proper to consider that this case does not properly come within the scope of the new branch circuit rule, and to apply to it Section 3804g (outline lighting), which would leave us free to determine from the size of the lamps and the number of receptacles whether the load will be within the capacity of a 15 ampere fuse. I do not see that it would be at all out of keeping, though to insist that not more than two such fixtures be supplied by one circuit—the point being not to mix this work up with the ordinary branch lighting circuit in any way.

Service Switches

The somewhat unusual phraseology of 405c has led to much argument, and several suggestions for rephrasing. Evidently there is need for rephrasing; and I presume that the proper standing committee will be ready with its recommendation when the time for amending the Code comes 'round. Meanwhile listen to the statement of an authority:

My understanding of the requirements of Rule 405c of the 1923 National Electrical Code is as follows: It is not mandatory to have a separate switch controlling each separately metered circuit or group of circuits. This is only a recommendation. If this recommendation is followed out with the inclusion of externally operable switches on

each group of circuits, it is permissible to use a service switch without a handle on the outside of its case. In all other instances such a handle must be provided.

Grounding Single Phase

Note that while a two wire single phase circuit must be grounded, and on either conductor, a two wire single phase service having a tap taken out

from the middle of the transformer becomes "single phase, three wire," and the ground must be "on neutral conductor"—and not on either outer wire. (Sec. 902E.)

Circuit Breaker at Service

Section 405E calls for a fuse or circuit breaker at the service, "and shall

be controlled by the service switch." When may a circuit breaker take the place of a fuse, and when the place of a switch? It seems to be the best practice to accept a circuit breaker in place of a fuse only where it will be under the supervision of a qualified attendant, and to consider it as a switch if it is arranged to be tripped by hand.

Distributing Overhead in Motor Repair Work-III

BY GEORGE P. SVENDSEN

Midwest Expert Makes Timely Suggestions for the Benefit of Electragists in the Field and Those Desiring to Enter It

[NOTE: In this the final installment of a series of three articles on every phase of the motor repair business, Mr. Svendsen explains methods of billing as they relate to the accurate figuring of labor charges and material costs. Mr. Svendsen is president of the Boustead Electric & Manufacturing Company of Minneapolis.—The Editor.]

Now let us examine our method and see how it tends to equalize our billing and automatically smooth out the irregularities that creep in with the other systems.

First, in our labor charge we have our cost to start with, and our fixed charge per hour—assuming the same percentage of profit—puts the heaviest burden charge on the low priced man at the same time applying this burden charge on an hourly basis. This more nearly approaches actual conditions, as in the repair shop the cheaper men are usually using the most equipment and also require more supervision. The high priced men are usually armature winders and trouble men who use very little machinery, as most of their work is bench work or out of the shop, so they should carry less burden on a percentage basis. The hourly basis is also a fairer method of distributing shop burden since most of the elements that make up this item vary with total hours.

On the other hand, if we apply our burden by any percentage scheme, the high priced man will be carrying an excessively heavy burden and his time will be billed out of proportion and the billing price will have to be frequently adjusted.

This flat hour charge will also tend to give the same final billing price on identical jobs performed by either low or high priced men, as the difference in billing price per hour is only the difference in cost per hour, which will usually be made up by less time required by the high priced man. On the

other hand, any percentage scheme makes any such wage difference even more pronounced. For example take a 50c man doing a job in 10 hours and a 90c man doing it in 8 hours. With a \$1.00 per hour fixed hourly charge we have billing prices of $10 \times \$1.50 = \15.00 and $8 \times \$1.90 = \15.20 . With the other method and say, 150% markup for burden and profit, we have $10 \times \$1.25 = \12.50 and $8 \times \$2.25 = \18.00 , quite a spread for the same job.

Small Quantity Material

Next consider the Class I material, which it will be found is usually handed out in small quantities. The actual cost of handling this material for a given job will depend more on the number of individual items involved than on the value. It will cost just about as much to issue, record and price a small amount of insulating material costing say 25c as to similarly handle a reel of wire costing \$10.00.

Therefore a fixed charge per item will give us a fairly exact handling cost of our material, while our percentage markup will take care of profit and part of general expense, which percentage should be on a sliding scale to keep in line with actual conditions. By separating our material in two classes, we can make this markup high on this very class of material which is responsible for increased expense on account of its slow turnover, increased investment and greater handling cost.

Lastly, our Class II material will usually have a fixed market price and our costs and markups have nothing to do with the billing price. It is a case of take it or leave it, and our problem is to analyze the different items of this material as suggested previously, and decide whether it is profitable to handle or whether we are better off by not carrying certain items. Here is a big

field open for our jobbers or manufacturers, or possibly our own Association to make a study of the actual cost of selling the various classes of electrical goods and see what gross profit is necessary in each case for the average contractor dealer to secure a net profit. Such an investigation might show that under certain conditions large motors at 10% would be a better proposition than fuses at 75% or vacuum cleaners at 30%.

Present Discounts Insufficient

The figures given by Mr. Gilchrist in the July number of THE ELECTRAGIST indicate that present discounts are not sufficient to show a retail profit considering all appliances on a grand average. It certainly would be interesting if Mr. Gilchrist's committee could go one step further and study each individual type of appliance. While the grand average shows a loss, it is highly probable that some items are showing a good profit which is more than absorbed by the loss on others.

At present the dealer discounts prevailing in the electrical industry apparently have no relation to the elements that go to make up the final net profit in selling. It is the common thing to find a manufacturer with the same discounts applying to his entire line ranging from one to several hundred dollars per item on which he has set the retail prices and on which turnover and selling expense vary widely.

This matter of selling prices and discounts is a big problem all by itself and of interest to the whole electrical industry and indicates wherein the electric repair shop man has a common interest with the regular contractor and dealer.

As stated at the outset, the suggestions given in this article are offered with hesitancy, as any one who has had anything to do with repair shop billing

realizes what a big job it is to get a system that will not require constant adjustment of individual bills with a padding here and a trimming there to make them fit competition or the value of the job as actually turned out.

Flat Hourly Charge

It was while working on a solution to these problems that I hit on the flat hourly charge idea explained in these articles and it seems to be a sort of cure for most of the troubles met with in repair shop billing. The clerical work is very simple, as even the crudest form of shop record gives the total labor cost and number of hours, and if the flat rate per hour addition is a round number the necessary numerical work can almost be done mentally.

It may be possible that this flat hourly charge added to labor cost is something new, as I have never run across a similar scheme in all my cost reading or conversation with cost accountants. At first thought it might seem to be no different from the usual hourly charge system used by so many contractors and repair shops who use one or two hourly billing rates, which are usually based on local wage scales and competitive conditions without regard to actual overhead and cost in their own shop. However, a little study of the method will show that it is an entirely different proposition and approaches much closer to ideal results.

I might add here that one of the worst features of present repair shop billing methods is this old hourly rate idea adopted from the regular contracting business. It is the common thing to find companies doing a mixed business applying the same billing rate to both construction and shop labor receiving the same wage. If we get a certain rate for a man out on a job with only a few hand tools, most of which are his own, it is reasonable to expect to get more for this same man's labor when we furnish him a place to work in and supply him with light, heat and power, to say nothing of labor saving machinery and many other items of expense.

Higher Rate Necessary

Any repair shop that bills work on this old basis must either lose money or make up the difference by fudging the number of hours or juggling the material billing.

There is only one answer to the proposition and that is to get more per

hour and prevent comparison with contracting rates by billing jobs in a lump sum. If you have the right kind of labor saving equipment, your bills can still be on a par with or less than the itemized bill.

A customer will be more interested in a complete description of the work done and can judge the merit of a lump sum figure just as well as a string of labor and material items about which he knows but little. You will note in the proposed scheme the shopwork proper is billed in a lump sum and the only itemizing is with Class II material which is more familiar to the customer and which is sort of separate from the repair job proper.

We have not been itemizing repair bills for almost three years now and in that time only two or three bills that I can recall were returned on this account. We do, however, give a very complete description of the work done. Repair work is a sort of manufacturing proposition and it is no more necessary to itemize labor and material than to expect a similar itemization on a job of printing or the bill for a pair of shoes or any other merchandise.

It is hoped that this will be a starter for a thorough investigation and discussion of this important subject by the motor repair shop electragists.

A United Industry

BY A. PENN DENTON

Code Enforcement Vital Says Member of Electrical Committee

In taking up the subject of the National Electrical Code and what it should mean not only to electragists but to the industry at large, as chairman of the Code Committee of the Association of Electragists and a member of the Electrical Committee of the National Fire Protection Association, I would have you regard these statements more as an informal discussion of certain phases of it as it is applied in the daily business life of every one of us.

I doubt that there is a man in the industry who does not right at this time feel that he understands exactly what the National Electrical Code is and just how it functions. I believe, however, that very few electragists, and probably a smaller number of electrical men who are representatives of other branches of our industry, really understand our National Electrical Code or appreciate what an important part it

plays in the daily life of every manufacturer, jobber, central station man, and electragist.

Let me ask first: What is this National Electrical Code which so recently has been revised and about which we have been hearing so much during recent months? I would explain briefly that it was given to us about thirty years ago as the result of the need of the insurance interests in that day for some basis or set of rules which would guide them in rating the electrical hazards or their fire insurance risks. Thereby they aided the early pioneers in the electrical business in determining the proper methods of making electrical materials and then installing them.

I believe the first printed Code in a very simple form was given to the electrical industry in 1897. At that time the electrical interests had no part in the preparation of it except as they were questioned by the insurance interests in its preparation. Within a very few years after that, however, the insurance interests found the need of having the closest coöperation from the electrical interests in the preparation of this code, and from that day on insurance inspection and electrical interests have worked closely together in Code preparation and revision.

You see we have a Code therefore that originated entirely in the hands of the insurance interests, and it was created by dire necessity and for purely good business reasons on the part of the insurance interests, and the electrical industry soon found its interests were best served by adhering strictly to the rules of that Code.

From that small beginning our Code has grown through the period of a quarter of a century to come to be a vital factor in the development of every branch of the electrical industry, until today the manufacturer, the central station, the jobber, and the electragist are absolutely dependent upon the standards given therein. I ask you therefore is this Code not a most important and vital factor in the business of the electrical industry today? You will admit that it is, and still most of you have taken very little part in aiding the Electrical Committee of the National Fire Protection Association, whose duty it is to revise this Code.

Again I ask you, can the insurance interests and inspection interests of the country possibly do any more for us in handling the Code work than they have done up to the present time? I

say No, and that it is now time for the electrical industry—not just the electragsists alone—to lend a helping hand and by concerted coöperative efforts do everything possible to improve the Code and make it a better, simpler and more rigidly enforced engineering standard in the years to come than it has been in the past.

What does this Code mean to the electragsist today? In my work of the past three years as a member of the Electrical Committee in preparing for the 1923 revision, I have been surprised at the lack of interest in Code work, and even more surprised at the indifference of electrical contractors all over the country to the standards given us in the Code by means of which inspection departments of this country can only satisfactorily judge and approve the electrical materials and installations that we are constantly using and installing. If the electrical contractor is so blind and lacks that interest which causes him to minimize the importance of a thing so vital to his daily business success as the National Electrical Code and its rules, I think it is high time for all of us to begin to study this Code and make of it the guide and important factor in our electrical construction business that it should be, and which up to this time we have sadly failed to recognize.

The National Electrical Code as it stands today is one of the finest engineering standards to be found in American engineering and business life. Even so, it has a great deal in it which could be changed and improved, and as a whole the 1923 revision should be simplified and made more uniform to permit of very much more rigid enforcement than Codes have been enforced in the past or will be possible with the 1923 Code. I feel that the insurance interests of this country, together with the inspection interests, have done more to aid the electrical industry than the electrical industry has done for itself in Code affairs.

Our Code is now at a turning point in its history. The new Code, the 1923 edition, which is now in our hands, is not the standard that it could have been had every branch of the electrical industry done its part in the preparation of this recent revision. When an engineering standard of this kind, which is so important that all principal electrical materials are manufactured solely under its guidance and when every type of electrical installation is made strictly

according to these Code rules, is this not an important enough document to call forth the best that the electrical industry has to give in its preparation?

I love this old Code and I have entered into the work of revising it as a member of the Electrical Committee of the National Fire Protection Association with my whole heart and soul. I believe in the Code as I believe in no other single factor which has to do with the business of the electragsist as the one thing that can do most to stabilize his business, and if he will but use the Code in his daily work as it was intended it should be used, it will be the means of eliminating more unfair competition in electrical construction work than anything else that he can employ.

But let me get back to the electrical industry and its relation to the Code. It is not for the electragsist alone to take the responsibility of improving the Code. The electrical industry coöperating together in all its branches has a real opportunity for service and leadership in the work of improving and revising all Codes of the future. If such a course is immediately taken by the industry, this action will command the respect and enlisted support and coöperation of the insurance interests, and whereas in the past they have had to take the leadership in all such work, I am sure they will gladly turn that leadership to those whose responsibility it is, namely, the electrical people. And when this is done we will have a Code far superior to the one we have today, one that will be self made and self enforced with a zeal and devotion beyond anything we have known in the past.

Let us progress and go forward, not backward, and may our National Electrical Code of the future be a standard of engineering practice in the electrical business even simpler than it is today, but a standard which our industry as well as the insurance interests can point to with pride and say that it represents the best in the modern manufacturing of electrical materials as well as installations of electrical equipment both with regard to safety to life and the fire hazard.

We want and must have in our National Electrical Code the engineering standard of our industry, that which every electrical man can point to as his standard in business, and that which will be without a parallel in any other industry.

Code Corrections

Due to the vast amount of effort put forth in an entire recodification of the National Electrical Code, a number of errors crept into the 1923 edition which has recently been distributed.

The following corrections should be noted in the rules as indicated:

- 405-c—4th line of note, insert "each" before "such."
- 503-o—7th line, insert "gutter of the" before "cabinet."
- 603-d—4th column of table, change "branch" to "braid" (in heading).
- 701-p—3rd line, change "503" to "502."
- 701-q—3rd line, change "joints" to "joists."
- 808-c—6th line, change "Table C" to "Table I."
- 808-e—2nd paragraph designated "e," change "e" to "f."
- 810—Change reference from "1003" to "1002."
- 814-a—3rd line, drop "of designs" down to head 4th line.
- 901-b—2nd note, 2nd line, change "e" to "d."
- 1003-h & i—Transpose and reletter.
- 1201-h—1st line, change "400" to "600."
- 1401-c—9th line, change ".05" to ".04."
- 1403-b—4th line of note, "approximately."
- 1403-f-g-h—Change to read "d," "e," and "f," respectively.
- 1404-g—3rd line of note, change "15/32" to "13/32."
- 1405-a—2nd line, print "Rosettes" with small "r."
- 1602-d-e-f-g-h—Change to read "e," "f," "g," "h" and "i," respectively.
- 3102-e—The first paragraph designated "e" should be "c."
- 3301-b—10th line, change "doors" to "resisting floors."
- 3802-d—2nd line, insert "weatherproof" before "approved."
- 3908—Heading (page 141), change to "3905."

Errors in the index are corrected as follows:

Automatic Protection of Circuits:

- Border lights, change "811" to "812."
- Feeders at supply station, change "814" to "815."
- Footlights, change "811" to "812."
- Generators, add, and refer to 810, 1002.
- Heating appliances change "810" to "811."
- Outline lighting, change "812" to "813."
- Signs, change "812" to "813."
- Small isolated plants, change "813" to "814."
- Grounding, Motor frames, change "3001" to "1001."
- Heating appliances, protection of, change "810" to "811."
- Reactive coils, change "1702-b" to "1701-b."
- Induction Coils, 1702-b should be stricken out.
- Instruments on switchboards, change "813" to "814."
- Multiple series, change "1303-a" to "1003-a."
- Outside work, trolley wires, change "301" to "303." Protective devices, fuses, etc., change "814" to "815."
- Rotating machinery, generators, change "1402" to "1002."
- Series Multiple, change "1303-a" to "1003-a."
- Transmission lines, change "303" to "304."
- Yard, change to read "401-b, 405-f."

It is suggested to users of the Code that the foregoing corrections be cut out and pasted in the Code—on the blank pages following the index in the back part of the book.

ORGANIZATION ACTIVITIES

STATE CHAIRMEN AND SECRETARIES

State	Chairman	Secretary	State	Chairman	Secretary
Ontario, Canada:	Harry G. Hicks, 203 Church St., Toronto	J. A. McKay, 24 Adelaide St., W., Toronto	Maryland:	A. C. Brueckmann, Keyser Bldg., Baltimore	C. Philip Pitt, 7 St. Paul St., Baltimore
British Columbia:	S. E. Jarvis, 570 Richards St., Vancouver	R. A. Graham, 929 Pender Street, W.	Michigan:	Henry Roseberry, 41 Pearl St., Grand Rapids	H. J. Shaw, 613 Lincoln Bldg., Detroit
Colorado:	J. Fischer, 213 15th St., Denver	H. Alex Hibbard, E. & C. Building, Denver	Missouri:	A. J. Dunbar, Frisco Bldg., St. Louis	G. E. Haarhaus, St. Louis
Connecticut:	Tryon Smith, 247 State St., New London		New Jersey:	Geo. E. Davis, 23 Central Ave., Newark	
District of Col.:	Frank T. Shull, Elliott St., Washington	H. R. Harper, 635 D St., N.W., Washingt'n	New York:	F. A. Mott, 29 St. Paul St., Rochester	H. F. Janick, 29 St. Paul St., Rochester
Indiana:	T. F. Hatfield, 102 S. Meridian St., Indiana's	A. I. Clifford, 507 Odd F. Bldg., Indianapolis	Ohio:	C. L. Wall, 212 S. Main St., Akron	Walter R. Keefer, 939 E. McMillan St., Cin'nati
Iowa:	Louis L. Corry, 510 Brady St., Davenport		Pennsylvania:	R. W. Keck, Allentown	M. G. Sellers, 1518 Sansom St., Philadelphia
Kansas:	C. S. Smallwood, 1017 N. 5th St., Kansas City	Arthur Tucker, 619 Jackson St., Topeka	Tennessee:	P. W. Curtis, Chattanooga	J. A. Fowler, 118 Monroe Ave., Memphis
Louisiana:	Robley S. Stearnes, 624 Carondelet St., N. Orleans	I. G. Marks, 406 Mar. Bk. B., N. Orleans	Wisconsin:	L. G. Ross, 1225 Tower Ave., Superior	H. M. Northrup, 25 Erie St., Milwaukee

LIST OF LOCAL ASSOCIATIONS AND MEETINGS

STATE AND CITY	LOCAL SECRETARY	STREET ADDRESS	TIME OF MEETING	PLACE OF MEETING
ALABAMA				
Birmingham	J. R. Wilcox	313 North 19th St.	Tuesday 10 a. m.	Members' Offices
Mobile	Frank Sigler	Sigler Electric Co.	Wednesday 5 p. m.	
ARIZONA				
Phoenix	E. A. Cummings,		Tuesday 4 p. m.	Builders Exchange
CALIFORNIA				
Anaheim	Mr. Waite			
Berkley	J. M. Gregory	Oakland	Each Week, Friday	Oakland
Covina	F. Rambo		Friday 8 p. m.	Ontario
Fresno	Clyde F. Smith	1162 Broadway	1st & 3rd Monday	Comm. Club
Long Beach	A. H. Rosenberg	So. Cal. Electric Co.	Tuesday Evening	Municipal Club
Los Angeles	Irvin C. Bruss	118 East 3rd St.		
Oakland	J. Gregory	Pacific Building	Tuesday 8 p. m.	Pacific Building
San Francisco	A. Elpins	165 Jessie St.	12 Noon, Thursday	States' Cafe
South Pasadena	J. Jacobs	1128 Mission Street	Tuesday 6:30 p. m.	Cham. Com. Bldg.
Van Nuys	Los Angeles Ass'n.			Pin Ton Cafe
COLORADO				
Denver	Alex. Hibbard	E. & C. Building	2d & 3rd Tuesdays	E. & C. Building
Manitou	H. Ashcraft		Friday Nights	Col. Springs
Pueblo			2nd Tuesday	Commerce Club
CONNECTICUT				
Hartford	Mr. Cook	Hart & Hegeman	1st Wednesday	Hartford
New Britain	F. Mulvehill			
Waterbury	D. B. Neth	Conn. Light & Power Co.	2d Tuesday Evening	Builders Exchange
DISTRICT OF COLUMBIA				
Washington			2d Thursday	Dewey Hotel
FLORIDA				
Jacksonville	M. A. Ladd	Stinson Electric Co.	1st Tuesday	108 W. Bay Street
Miami	C. E. Pullen	Pullen-Zohl Co.		
GEORGIA				
Atlanta	W. C. Drake	Ga. Ry. & Power Co.	12:30 Friday	Dafodil Res.
Savannah	Sylvan M. Byck	141 Bull Street		
ILLINOIS				
Chicago	J. W. Collins	179 W. Washington St.	2nd & 4th Wednesdays	Lumbermen's Exchange
Master Contrs. Ass'n.	F. J. Boyle	31 West Lake St.		
Decatur	E. O. Weatherford	114 E. William St.	1st Wednesday	Y. M. C. A.
Springfield	C. A. Meadow	107 E. Adams St.	Saturday 2 p. m.	Arcade Building
East St. Louis	C. F. Broderick	317 E. Broadway	1st & 2nd Tuesday	Post Hall
La Salle	Edward Blaine		2d & 4th Wednesday	214 1/2 No. 6th Street
Quincy	John Harbison	18th & Broadway	Monthly	
Rock Island	John Weishar	613 Tyler Street		
Streator	William Schroder			
INDIANA				
Evansville	I. A. Welburn	404 Main Street	Every Friday	Y. M. C. A.
Gary	A. B. Harris	570 Washington St.		
Indianapolis	E. V. Knight	307 N. Penn. St.	Every Thursday	Hotel Lincoln
Peru	J. B. Johnston	West 5th Street	2d & 4th Monday	Labor Hall
South Bend	Mr. Moran, Jr.	832 N. St. Louis	1st Tuesday	B. & T. Ex. Building
Warsaw	L. F. Meyers	120 E. Market St.	Wednesday Evening	
IOWA				
Davenport	Louis F. Cory		Monday 6 p. m.	Chamber Com.
Sioux City	F. H. Abbott		Monday 6 p. m.	Jackson Hotel
Waterloo	H. L. Hileman			
KANSAS				
Salina	Geo. H. Shanks	146 So. Santa Fe St.	1st Thursday	
Topeka	H. S. Lee	816 Kansas Ave.	Monday Noon	Elks' Club
Wichita	L. A. Harris	446 North Main	Every Tuesday 7:30	United Elec. Co.
KENTUCKY				
Louisville	Chas. Daubert	921 S. Third St.	2d, 4th Thursdays	B. of T. Building
Paducah	W. R. Kitterjohn		Last Thursday	
LOUISIANA				
New Orleans	Frank Gacheck	406 Marine Bank Bldg.	2 p. m. Monday	406 Marine Bank Bldg.
Shreveport	Percy Elliott	Elliott Elec. Co.	Every Monday	
MAINE				
Portland	Lyman P. Cook	12 Free Street	On Call	Graymore Hotel
MARYLAND				
Baltimore	George Robertson		Bi-monthly	Soathem Hall
MASSACHUSETTS				
Fitchburg	R. M. Gowell		1st Monday	Fay Club
Haverhill	H. W. Porter	24 West St.	2nd Monday	El. Light Station
Newton	C. L. Howe	897 Washington St.	2d Monday ea. month	Various Places
Springfield	Mr. Ayers	103 Rochelle St.	Monthly	Chamber of Comm.
West Medford	H. J. Walton	Malden Elec. Co.	2d Thursday	Various
Worcester	J. W. Coghlin	259 Main St.		44 Front Street
MICHIGAN				
Battle Creek			Every other Tuesday	Post Tavern
Detroit	H. Shaw	613 Lincoln Building	Last Thursday	G. A. R. Hall
Flint	J. Markle	718 S. Saginaw		
Grand Rapids	Henry Romyn	40 Ionia Av., N. W.	Tuesday Noon	Association of Com.
Kalamazoo	M. Randall	Exchange Place		Chamber Commerce
Saginaw	E. T. Eastman	209 Brewer Arc.		

ORGANIZATION ACTIVITIES—(Continued.)

STATE AND CITY:	LOCAL SECRETARY	STREET ADDRESS	TIME OF MEETING	PLACE OF MEETING
MINNESOTA				
Duluth	D. Ehlert	210 W. 1st St.	Subject to Call	Builders' Exchange
Minneapolis	W. I. Gray	511 S. Third St.	2d & 4th Monday	Elk's Club
St. Paul	E. Hoseth	993 Selby Avenue	2d & 4th Tuesday	University Club
MISSOURI				
Kansas City	R. L. Hutton	212 Admiral Boulevard	6:30 p. m.	American Hotel
St. Louis	E. Bowman	644 Century Building	2d Tuesday	C. of C. Building
NEBRASKA				
Lincoln	G. G. Kingham	142 S. 12th Street	1st & 3rd Monday	Builders' Exchange
Omaha	E. H. Brown	1818 Harvey St.	2d and 4th Thursdays	
NEW HAMPSHIRE				
Portsmouth	F. C. Hatch	Kittery	2d & 4th Wednesdays	
NEW JERSEY				
Atlantic City	F. P. Wright	16 Ohio Ave.	1st Thursday	Malatesta Hotel
Jersey City	Wm. Doellner	843 Bergen Ave.	1st & 3rd Mondays	P. S. Building
Long Branch	Chas. Maggs	462 Bath Ave.	1st Monday	Commercial Hotel
Newark	George E. Davis	23 Central Ave.	Last Friday	P. S. Building
Paterson	H. M. Desaix	88 Ellison St.		
NEW YORK				
Albany	E. A. Stephens	71 Trinity Place	3rd Thursday	Pekin Restaurant
Binghamton	A. H. Hyle			
Brooklyn	H. F. Walcott	Pacific St. and 3d Ave.	1st & 3rd Wednesdays	Johnston Building
Electric Club	A. Stone	503 Myrtle Ave.		
Buffalo	E. P. McCormick	55 Washington Street	Fridays	507 Elec. Building
Cooperstown	B. B. St. John	Oneonta	3rd Tuesday	Vanon
Endicott	A. H. Hyle	Binghamton	Tuesdays	Chamber Commerce
Glens Falls	W. F. Coombs	21 Main Street, S.		
Jamestown	Henry Lund	309 Main Street	3rd Monday	Manufacturers Ass'n.
Kingston	M. C. Rivenberg			
Nassau-Suffolk	Edwin M. Seaman	Mineola		
New Brighton	E. L. Taylor	Tottenville	1st Thursday	Building Trades
N. Y. Section, No. 1	J. W. Hooley	45 Barclay Street	2nd and 4th Wednesdays	226 W. 58th St.
Independent	A. Lincoln Bush	906 Sixth Ave.		
Section No. 3	L. F. Luedicke		Monthly	Various Stores
Olean	H. C. Thuerk	Olean L. & P. Co.	3rd Thursday	Eggleston Hotel
Oneonta	B. B. St. John		1st and 4th Mondays	Saratoga and Glens Falls
Rochester	H. F. Janick	29 St. Paul Street	2d and 4th Thursdays	
Saratoga Springs	W. F. Camp	So. Glen Falls	Subject to Call	
Schenectady	Mr. Spengler	McClellan St.	1st and 3rd Mondays	St. George, S. I.
Syracuse	H. N. Smith	P. O. Box 809	1st Tuesday	Gas Office
Tottenville	W. Taylor	Tottenville, S. I.	1st Tuesday	Elk's Club
Troy	H. W. Boudey	First Street	3rd Fridays	Utilities Building
Utica	W. C. Balda	228 Genesee Street		
Watertown	L. B. Smith	Roth Block		
Woodmere	Geo. La Salle	Westbury		
Yonkers	Mr. Mayer	Manor House Sq.		
OHIO				
Akron	Harvey Uhl	211 Water Street	Alternate Thursdays	2nd Nat. Bank Bldg.
Bellaire	J. Blumberg	Bellaire	Call of Secretary	Bellaire
Canton	H. S. Hastings	Industrial Corporation	1st Tuesdays	Industrial Com.
Cincinnati	W. R. Keefe	939 E. McMillan	Tuesday 3 p. m.	Chamber of Com.
Cleveland	Frank Monahan	1761 East 12th Street	1st and 3rd Thursdays	Hotel Statler
Columbus	O. A. Robins	1517 Franklin Ave.	Every Thursday	Girls Athletic Club
Dayton	Clarence Carey	1107 Bron Ave.	2d & 4th Mondays	Builders' Exchange
Springfield	M. H. Gray		On Call	Various
Steubenville	D. C. Hartford		1st Wednesday	Nat. Exchange Bank
Toledo	J. Kelly	16 Huron Bldg.	Every Wednesday 8 p. m.	16 Huron Building
Youngstown	F. F. McBride	Builders' Exchange	Monday Noon	Y. M. C. A.
OREGON				
Medford	S. C. Clark	Cal. Ore & Power Co.	3rd Monday	
PENNSYLVANIA				
Allentown	A. W. Hill	Bethlehem	Last Thursday	
Bethlehem	A. H. Hill	510 W. Main Street		
Catasauqua	W. T. Kleppinger		Last Thursday	
Dubois	C. E. Blakeslee		Monthly	
Easton	G. E. Hill	Bethlehem	Monthly	
Erie	Earl Stokes	Builders' Exchange		Builders' Exchange
Lancaster	A. Deen	434 S. Sheppen	3rd Friday	Underwriters Office
Philadelphia	M. G. Sellers	1518 Sansom St.	2nd Thursday	1518 Sansom St.
Pittsburgh	Fred Rebels	4th Avenue	1st Thursday	4th Avenue
Scranton	A. J. Fowler	Board of Trade Bldg.	Tuesdays	Zenke's
St. Marys	C. E. Blakeslee	Dubois	Mondays	
Wilkes-Barre	Ambrose Saricks	Penn. Pr. & Lt. Co.	Tuesday Evenings	Penn. Pr. and Lt. Co.
York	A. E. Harris	E. King Street	2d & 4th Tuesdays	
RHODE ISLAND				
Providence	Herbert C. Hill	35 Westminster Street	1st Thursdays	
SOUTH CAROLINA				
Charleston	J. P. Connolly	Elec. Contr.-Dealer Assn.		
Columbia	E. L. Cashion	Sumter, S. C.		
Greenville	E. C. DeBruhl	Ideal Electric		
TENNESSEE				
Chattanooga	Carl Schneider	412 Kirby Avenue	Wednesday	Manhattan Cafe
Knoxville	H. M. Moses	615 Market Street	Noons	Railway Light Co.
Memphis	H. A. Street	285 Madison Av.	Monthly	Allyn Cafe
Nashville	J. Shannon	8 Ave. and Church	Every other Wednesday	Tribune Hotel
TEXAS				
Dallas	H. A. Brewster	409 S. Eway	On Call	409 So. Eway
El Paso	R. S. Murray	1515 No. Campbell	Ev. Tuesday	303 Martin Building
UTAH				
Salt Lake City	Gus. Forsberg	69 E. 4th South	Wednesday 12:15 p. m.	Newhouse Hotel
VIRGINIA				
Lynchburg	W. M. Elliott	Lynchburg	1st Wednesday	Local Stores
Norfolk	K. D. Briggs	Arcade Building	Wednesdays	Old Colonial Club
Richmond	W. A. Cutlett	Jefferson and Grace Sts.		
WASHINGTON				
Seattle	Rush McCarger	3rd and Madison St.	Thursdays	Elk's Club
WISCONSIN				
Green Bay	John B. Tingley	223 Cherry St.	1st Thursday	Nicolet Building
Milwaukee	E. H. Herzberg	156 5th Street	1st Monday each Month	456 Broadway
Racine	F. H. Patrick	1545 W. Boulevard	1st Tuesday	Racine Building
CANADA				
Calgary	E. W. Beard	The Gringer Co.	Bi-weekly	Christie Elec. Co.
Guelph	W. E. Lemon	clo N. Electric Co.	2d and 4th Monday	
Hamilton	K. J. Donoghue	clo Doerr El. Co.		
Kitchener	O. S. Leyes	65 McGill College Ave.		
Montreal	G. C. L. Brassart	128 Osgood St.		
Ottawa	A. C. McDonald	Electric Shop	Monday 8:00 p. m.	Elec. Inspection Office
St. Catherine	A. J. Desand	24 Adelaide St.	1st and 3rd Wednesday	Chamber Commerce
Toronto	J. A. McKay	2427 Granville St.	2nd Tuesday	Board of Trade
Vancouver	J. F. Hutchinson	609 Moy Ave.	Every Tuesday	425 Pacific Building
Windsor	A. H. Cook	General Elec. Co.	2d and 4th Thursdays	Notre Dame Building
Winnipeg	R. N. Elgar			
Niagara Peninsular	W. H. Mackenzie	609 Moy Ave., W.		

Eastern Division Convention

First 1924 Affair Planned for March 18 in New York City

Plans are under way for a meeting of the members in the Eastern Division of the Association of Electragists to be held in New York City on Tuesday, March 18, following the midwinter meeting of the Executive Committee of the International Association on the previous day.

This occasion is taken for the Divisional Convention to give the members an opportunity to meet the International Executive Committee, and to hear at first hand from them of the Association work throughout the country.

The Tuesday morning session of the convention will be devoted to meetings of the Open Shop and the Union Shop Sections of the Association.

The convention session will start at two o'clock in the afternoon, and the program will cover subjects of vital importance to the electragists of the Eastern Division. The tentative plans call for talks by several of the Executive Committeemen who are serving as chairmen of important committees, and who will report upon the progress of their particular work.

In the evening it is planned to hold a dinner at which two prominent figures in the industry will be the only speakers, following which dancing will be indulged in for the balance of the evening. Members attending are invited to bring their ladies, and it is hoped that this feature will be a very enjoyable part of the program.

It is expected that the convention will be held at the Hotel Astor, but the final

details of the program and arrangements are not yet completed and will be announced at an early date.

Wisconsin State Meeting

The annual convention of the Wisconsin State Association of Electrical Contractors and Dealers will be held in Milwaukee at the Pfister Hotel, January 17-19. A meeting of the executive committee will take place on the morning of the opening day, with a general business session in the first part of the afternoon.

Then the convention opens and the first item on the program, which is a particular feature, is a debate on the following resolution:

WHEREAS, The statement has been made that the electrical contractor-dealer is not a merchandiser; and

WHEREAS, It is also stated that the electrical contractor-dealer is not a proper channel for the distribution of electrical merchandise; and

WHEREAS, The tendency seems to be for the department store and hardware store to sell large quantities of electrical merchandise; it is therefore

RESOLVED, That the electrical contractor-dealer, having proper knowledge and equipment, is the only one in the industry capable of servicing electrical merchandise that is offered to the public, and is therefore the proper person to merchandise this material.

E. D. Herzberg of the Right Electric Company, Milwaukee, will take the affirmative, and P. C. Burrill of the Trester Service Electric Company, the negative.

On Friday morning, January 18, the following are scheduled to speak: H. D. Sanborn, General Electric Company; Oscar Stotzer, Stotzer Granite Company, on Business Etiquette; and R. C. Neff, vice president, Wisconsin Power Light and Heat Company, and also chairman,

national rural lines committee of the N. E. L. A., on Rural Lines.

In the afternoon the motion picture, *Show 'Em How*—explained elsewhere in this issue—of the Westinghouse Lamp Company, will be shown to be followed with a talk by Secretary Laurence W. Davis of the Association of Electragists on Putting the Association at Work in Your Business. Radio and Its Possibilities for the Electrical Contractor-Dealer, will be the subject of a talk to be given by a representative of the Radio Corporation of America.

The annual banquet and dance will be held Friday evening. Saturday morning will be devoted to a further business session, with an election of officers. On Saturday noon, January 19, the convention will close, thus giving attendants an opportunity to visit the automobile show to be held in the city and to open at that time. The ladies are cordially invited to attend this convention, as special arrangements have been made for their entertainment.

Board of Trade Luncheon

Local Organization of New York City Holds First General Get Together Meeting

The Electrical Board of Trade of New York City held a luncheon meeting at the Hotel Astor on Wednesday, December 5, which was largely attended and highly interesting.

So large was the crowd that additional seating arrangements had to be made before all attendants could be accommodated, and at that the immense ball room in which the luncheon was held was filled to capacity.

Arthur Williams of the New York



A Record Audience of Electrical Men Attended the New York Board Meeting

Edison Company and president of the Board, who set forth some of the aims of the organization, was toastmaster. The speakers were Theodore Beran of the General Electric Company, who is also one of the vice presidents of the the Board of Trade; W. A. Kennedy of the Sibley-Pitman Company, who talked from the standpoint of the electrical supply jobber; Frank Pattison, a prominent electrical engineer; James H. McGraw, who tendered the support of the McGraw-Hill publications to the Electrical Board of Trade; and Charles L. Eidlitz, chairman of the board of governors of the association and Commissioner of the Greater New York electrical contractors.

Instead of outlining the plans for the future of that organization and telling what it hopes and expects to do, Mr. Eidlitz gave a most impressive talk on the actual accomplishments from its start to the present time. He explained the effective work which had been done with the New York City license board; what had been accomplished toward eliminating the special permit practice; and how the correction of such practices would bring about a better type of construction. He outlined some of the other accomplishments as follows:

"Formerly, when a concern found itself in financial difficulties the bankruptcy shark lawyers jumped in and picked the carcass clean, and the creditors were silent lookers on. Since we have taken hold of some of these conditions, the shark has had rather a discouraging time of it. We have now cleaned up several of these failures, saving from sixty to seventy-five cents on the dollar for creditors where nothing would have been left had the sharks gotten in. The result has been that as soon as a concern finds itself shaky it brings its balance sheet to us and with our ability to reach the creditors we have only recently saved two concerns from difficulty and their troubles were never known to anyone except one or two of their large creditors who helped them over the hurdle.

"We have established by our methods of handling these cases a rather new angle in business, i. e., if a man is honest but is in a temporary jam, he should be aided, but if dishonest he should be put out of the industry. We are about to put one out very shortly and if I have my way we will aid in sending him where business will be the least of his troubles.

"Due to the fact that we at the Board

have no personal interest in these cases we are able to get the absolute truth and this results in having constantly increasing credit information which could not be gotten in any other way. We are now being recognized to such an extent that our request for detailed statements bring them to us at once. Those who are using the Board for this information have expressed themselves as greatly surprised at what we can get from them.

"Early in our being it was discovered that the electrical engineer and the architect were specifying in such a way that it led to misunderstanding and expense to say nothing of loss and lawsuits. Meetings were held, committees appointed under the auspices of the Board and within a week or so practically all of these conditions will have been cleaned up by mutual agreement and will be broadcast by this Board so that they will be recognized by all hands.

"Difficulties arose in August between certain jobbers and utilities. An investigation by us showed conclusively that an injustice had been done the jobber, but unintentionally. This has been stopped and cleaned up and will probably never happen again.

"Certain department stores in an attempt to sell dry goods used a popular device as a leader by advertising it at thirty-nine cents below that which they paid for it. The business of the concern in question in this locality was actually threatened and they appealed to us. Conferences were arranged and in less than forty-eight hours we sold the idea to the department store that this was unfair and the ads were withdrawn. The company for whom we did this was not a member of the Board, but we felt it was bad for the industry as a whole.

"We are collecting unpaid bills for members at a constantly increasing rate. All we want to know is that the bill is fair and honest and if we are convinced of this and the debtor has the money we come pretty near to getting it, or arranging for a settlement.

"Architects and owners are daily consulting us as to materials, manufacturers, and contractors. We refuse to recommend any particular line or firm, but we are giving them a list for their selection. In many cases they are asking our approval on an individual engineer or contractor and in these cases we are giving them the answer.

"Banks and trust companies are consulting us in an increasing number as

to the moral hazard of men in the electrical line when these people open accounts or apply for loans or renew paper, and a number of these banks have stated that they have never been able to get information of such value to them, and so they keep coming for more all the time. This of course is giving us an inside knowledge of what is going on in the finance end of the business, and the more we are questioned the more information we actually get.

"Many irregularities in the business, i. e., accepting and buying stolen goods, have been corrected by moral suasion. In many cases it is difficult to actually obtain legal proof of these activities, but we have found methods which seem to be operating successfully and we have compelled a number of people to give up these activities from fear of exposure.

"The public is appealing to us constantly for help concerning lack of attention on the part of public utilities, or failure of contractors to make good and in every case so far we have been able to give them almost instant relief by taking their case up with the utility company or contractor and urging action for the good of the industry.

"We are constantly being asked for special types of men, or men with certain qualifications electrically and have placed quite a number up to the present time, and as time goes on we will undoubtedly be compelled to establish a regular employment department so that competent people when released due to no fault of theirs will not drift and finally leave the business, but will immediately be relocated in other employment, saving a considerable amount in turnover expense."

Big Toronto Meeting

A. E. I. Officials Complete Nationwide Trip of 12,000 Miles

On November 26 a meeting of electrical contractor-dealers was held in Toronto, Ontario, at the Prince George Hotel under the auspices of the Ontario Association of Electrical Contractors and Dealers, presided over by Harry Hicks, chairman. This was the final meeting on the itinerary of the official trip made by President James R. Strong of the Association of Electragists during which twelve thousand miles were covered and conventions and meetings were held in every Division of the Association in the United States and

Canada. He and Secretary Laurence W. Davis, who accompanied him, were the principal speakers.

The meeting opened with a luncheon at noon with about seventy-five in attendance representing all branches of the industry although the majority were contractor-dealers. A feature address of the afternoon was made by Alice Carroll of the Society for Electrical Development on How to Sell the Housewife, printed in last month's issue. Her talk embodied many suggestions prompted as the result of a personal visit to Toronto stores in the morning.

Talks by A. E. I. Officials.

Secretary Davis gave his usual talk to contractors on Estimating and Selling the Job, illustrating it with blackboard demonstrations. President Strong was the speaker at the banquet in the evening, and he outlined the Work of the A. E. I. and Its Importance to the International Membership. The banquet was attended by one hundred and fifty people including many wives and other ladies in the industry.

Before taking up the subject of his talk Mr. Davis answered a direct question put to him by the local men on the question as to whether the combination contractor-dealer is the logical method of distribution in the electrical industry, or should the two be separate. His answer was as follows:

At our last annual convention in Washington we had a debate on this subject. We selected leaders for the two sides, "For" and "Against." On the negative side we put a man who had attempted it and failed and on the affirmative side a successful man. We had as judges editors of electrical trade journals representing the industry. The decision was that the affirmative side had won the debate and that the contractor-dealer was the most logical one and the most satisfactory.

Would Not Quit Merchandising.

During the debate we had men get up who are successful contractor-dealers, who told us that they were doing a very large amount of dealer business and making no money on it—that they were showing no profit on it and yet they would not think of going out of it—that it was worth carrying on as a feeder to their contracting business even though they were not making a profit on the merchandising. That is probably the real answer to the question as it exists today. It is not a healthy answer,

but until the solution is found it is fortunate that this frame of mind exists.

The International Association has been studying this very carefully now for three or four years. We feel that there is a definite need of an increased margin. You men who are students of this and are following the trade journals must have seen what is going on today, that there is an attitude of mind in all groups recognizing that we have got to get increased reward if successful distribution is to continue. What is the future of the distribution of appliances? There is only one logical channel, and that is the electrical store.

Now I don't mean by that that the hardware store and the furniture store and the drug store and the 5 and 10 cent store are ever going to be put out of business. There is no law of economics that forbids them to sell electrical appliances and they have just as much right in the business as we have, but there are certain unsound features in connection with their merchandising. If it were not for the electrical men who are building the markets for electrical appliances, you would not find the drug stores handling them. And therefore if the manufacturers and distributors expect that market to grow and continue growing we must set up a system of distribution which will encourage and protect those who are creating and developing the markets. A greater reward to those who are retailing electrical merchandise we believe is essential to a proper development of real electrical stores.

N. E. L. A. Committee Study.

John F. Gilchrist of the N. E. L. A. has contributed a wonderful study this year through his committee, of eleven central stations of the United States which are doing probably more merchandising than any other group. He has taken into consideration every part of the selling of that merchandise and finds that the gross margins on which they were able to buy their merchandise was 31%, and their gross cost of selling alone was 24% and administrative cost in connection with selling was 19%, making the gross actual merchandising cost 43%—showing a net loss of 12% on over \$2,000,000 of merchandising by these eleven central station stores.

I believe that is a higher cost than the average electric store cost. Unquestionably they were doing a greater amount of development and educational work than the average store would at-

tempt. Nevertheless we do know that the spread that we have had in the past has not been sufficient. There has been some improvement in this spread but it has not reached its true level.

Development of markets costs money, and whether we do it through electrical development leagues, coöperative advertising, etc., without regard to the seller who must carry on and perpetuate the work if it is worth while, or whether we do it through the encouragement of individuals, by making the reward so attractive that they will find it to their benefit to push sales, improve their stores and selling methods, increase their advertising campaigns, etc., is a question the industry needs to seriously consider.

If you give the dealer an incentive to sell electrical goods he will sell them, but when the reward is just enough so that he is discouraged and half hearted, unable to broaden out and develop his business, none of the educational work necessary to sell goods can be done.

There has existed for years past now the drug stores, etc., which handle electrical goods. They can handle them cheaper because they are parasites on the market and have assumed none of the expenses of development. If the electrical market dropped off they would not be out of business tomorrow. They would put perfumes and rubber goods on the counter in place of electrical goods. They only carry the bread and butter goods in electrical merchandise.

As to whether the combination contractor-dealer business is the logical one is dependent upon the individual fitness of the contractor to be a merchant. Granting that lines of merchandise may be secured carrying adequate margins of discount and that the location of the store is suited to conveniently serve the public I would certainly advise the combination contractor-dealer business for the man who is capable of giving real merchandising service. Not for the man who runs a typical contractor's store and puts into it engineers' and contractors' supplies plus a few appliances and expects them to sell themselves, and then expects his business to be successful. No! But to open a real combination store, keeping in mind the fact that you are the electrical store of the community with the opportunity to gain the confidence and goodwill of the public in that community as serving all of their electrical needs, holds a real reward for the real merchant.

Kansas City Meetings

On Monday noon, January 21, Laurence W. Davis, general manager of the Association of Electragists, will address the Electric Club of Kansas City at one of their regular luncheon meetings. At night on the same date Mr. Davis will address a meeting of electrical contractor-dealers to which members as well as nonmembers throughout the surrounding territory will be invited. It is hoped that a large crowd will be in attendance to hear the message of Mr. Davis.

Long Island Meeting

On December 12 a quarterly meeting of The Nassau-Suffolk Association of Electrical Contractors and Dealers took place in the board rooms of the Electrical Board of Trade of New York City. The meeting was called to order by President Hiram V. Cosby of Woodmere at three o'clock, and at the close a dinner was served at the expense of the Association.

Theodore H. Joseph, a prominent New York contractor, made an interesting address, and Laurence W. Davis of the Association of Electragists talked on Putting the Association at Work in Your Business. Commissioner Charles L. Eidlitz of The Electrical Board of Trade made one of his highly interesting talks.

Luncheon to Dana Pierce

When announcement was made that Dana Pierce had been elected president of the Underwriters' Laboratories and would remove from New York City to Chicago, arrangements were hurriedly made to give him a farewell luncheon. Accordingly about fifty of his friends and associates met at the Drug and Chemical Club on Friday, November 23, with that end in view.

Various interests with which Mr. Pierce had long been associated were represented, such as the Insurance Society of New York City, under the auspices of which the luncheon was given, the Underwriters' organizations, Fire Insurance exchanges, inspection departments, etc. The Association of Electragists was represented by President James R. Strong.

Charles R. Pitcher, president of the Insurance Society, acted as toastmaster and introduced O. E. Schaeffer, president of the Westchester Fire Insurance Company, who spoke for the insurance interests, E. Cressy Morrison of the

Acetylene Company then spoke for other interests, while Hart Darlington of the Norwich Union Fire Insurance Society offered congratulations on Mr. Pierce's advancement. The speakers unanimously held Mr. Pierce to be a man bred to live straight, trained to think straight, and ever cherishing New England conscience.

Mr. Pierce responded with deep personal feeling and with a characteristically lucid statement of what his organization has meant and will continue to mean to our present civilization. He described the Laboratories as an institution which was founded upon goodwill, to sell honest opinions.

Mr. Pierce departed for Chicago on November 30, where he immediately will assume his new duties.

To Meet in Omaha

The next annual convention of the Western Association of Electrical Inspectors will be held in Omaha, Nebraska, on January 29, 30 and 31.

In sending in an announcement of this meeting, Israel Lovett, who is the city electrician of Omaha, calls attention to the progressiveness of that city. He refers to the resolution passed at the Washington convention of the Association of Electragists in which that organization went on record in urging its members to use their influence in securing legislation favoring all metal installations.

"Now," writes brother Lovett, "to show that Omaha is strictly up to date, I quote Section 3 of Ordinance No. 6270, as follows:

"Section 3. That approved metallic conduit or approved armored cable will be required for the installation of all wiring for the carrying of electric current for light, heat or power in asylums, hospitals, hotels, theaters, public buildings, schools, factories, churches, ware-

houses, mills, grain elevators, feed stores, livery stables, meeting halls, capable of seating four hundred (400) or more persons, buildings of fire-proof, or mill construction and in all buildings where the floor space, comprised within fire walls on any floor, exceeds an area of six thousand (6,000) square feet, except as hereinafter provided."

Furthermore, this same authority states that the aforementioned ordinance was passed nearly sixteen years ago and has been enforced ever since in the city of Omaha. So he says that he believes electrical inspection is fairly up to date there.

More than that, Omaha seems to be a few jumps ahead, and the Western Inspectors' Association has made no mistake in selecting that city as its meeting place this month.

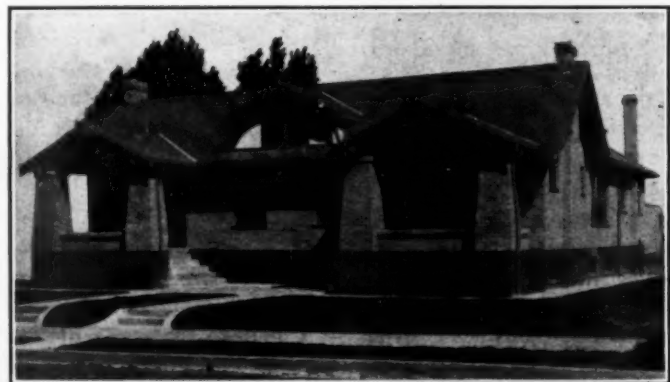
Denver Electric Home

Double Bungalow Type Exhibited by Electragist Was Built for Own Use

One of the most practically laid out electric homes yet exhibited to the people of Denver was that of a double bungalow built for his own use by an electragist, Carl S. Homsher, proprietor of the A. to Z. Electrical Company, and publicly inspected the past fall. Mr. Homsher drew up his own plans and specifications, and also supervised the work of construction. Simplicity was carried out in every particular, and the number of light outlets, switches and convenience outlets and type of fixtures used in this modern double bungalow were as follows:

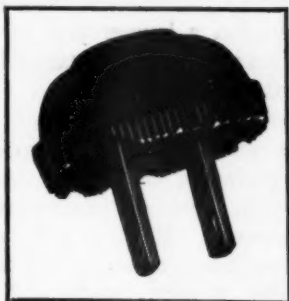
Front Porch—One bracket outlet with a Verd green lantern and illuminated house number, controlled from both inside and out by means of three way switches. One door push to operate bell in kitchen.

Living room—One ceiling outlet with a five light butler silver and black candle fixture, controlled with switch at front door. Four two light candle brackets finished same as center fixture with switch at front door. Three



Practicality of Layout and Simplicity of Construction Were the Keynotes of the Double Electric Bungalow Exhibited to the People of Denver Last Fall

Does Not Crumble!



This is the way the black molded type of attachment plug looks after a few months of hard usage. The "A-1" plug will not crumble in this manner.



A-1 PLUG

"Not cheaper but better"

Mr. "Wise" Dealer!

We have tried to point out some of the advantages of our all-Bakelite attachment plug over the commonly known type of black moulded material in the accompanying illustrations and we will venture to say many of you will appreciate this advertisement from a sensible standpoint because you have experienced this trouble in your own homes.

Owing to the great tensile strength of Bakelite as compared with black moulded material, we are enabled to rivet the prongs of the cap to the solid inserts in such a manner that these prongs may be twisted back and forth until they break off before they become loose on the inserts. Other features and improvements incorporated in our new plug make it so attractive to the consumer that everything else being equal, it will "swing" the sale and incidentally make another satisfied customer.

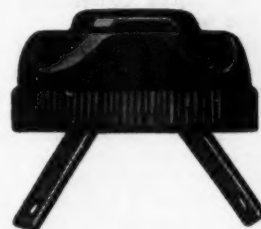
Some dealers argue that it makes more business for them by replacing plugs. Granted—but what chance has this fellow got to stay in business if his competitor next door is creating new business by recommendations from satisfied customers. Therefore, Mr. "Wise" Dealer, when placing orders for any kind of appliances (especially expensive devices), such as washing machines, vacuum cleaners, dish washers, etc., insist upon having the extension cords fitted with the "A-1" Bakelite plug, because it will only be a question of time before all high-grade appliances will be equipped in this manner. They say you can tell a person by the "company he keeps"—just so you can tell a concern by the "quality it selects." The Connecticut "A-1" all-Bakelite brown plug is in a class by itself. The color identifies it from the cheaper grades.



The "A-1" Plug is packed in this 3-color display carton

It's Brown

Try this Experiment with other Plugs



FIRST—Bend the contact prongs of the "A-1" plug outward, until they extend well over the edge of the cap—see illustration.



SECOND—Pull the prongs together again until they are back in their normal position.

This Is What Happens!—

After repeated bending in this manner, the prongs of the ordinary black-molded plug become loosened to the extent that they can be wobbled about in the cap, thereby making them difficult to engage in the body slots.

With the "A-1" plug, the prongs are riveted so securely in the Bakelite material that after repeated bending they remain perfectly rigid.

CONNECTICUT ELECTRIC MFG. CO.
BRIDGEPORT, CONN.

NEW YORK

CHICAGO

SAN FRANCISCO

Manufacturers of

CONNECTICUT "A-1" DEVICES

ELECTRAGISTS USE THE PRODUCTS OF ADVERTISERS IN THE ELECTRAGIST

duplex or convenience outlets or receptacles in base and one in center of floor.

Dining Room—One center ceiling outlet with an enclosed unit of radiant decorative glass of Adams and Blue with hanger of butler silver and black, controlled with two three way switches at kitchen and hall doors. One convenient duplex outlet in base, one in center of floor and one wall near sideboard. One duplex plug for radio outlet in base. One daisy floor tread under dining room table to operate a miniature buzzer in kitchen. One concealed telephone outlet in writing desk.

Front Bedroom—One center ceiling outlet with an enclosed unit, controlled with switch. Two duplex convenience outlets in base and one wall.

Rear Bedroom—One ceiling outlet with a three light candle butler finished fixture and Monax decorative candle shades, controlled with switch. One duplex base receptacle and one wall. Each of the bedroom closets had one ceiling outlet with automatic door switch to control same. The fixtures were chain pendants provided with pull chain sockets so as to make it possible to turn off if desired to leave door open.

Sleeping Porch—One ceiling outlet with chain pendant, shade and frosted lamp, controlled with switch; and one duplex wall receptacle or plug.

Center Hall—One ceiling outlet with ceiling fixture and switch.

Bath Room—One ceiling outlet with No. 10,806 no switch Aglite and 40 watt frosted lamp, controlled with wall switch. Two bracket outlets with Aglite keyless receptacles and 25 watt frosted lamps, controlled with switch. One duplex convenience outlet.

Kitchen—One ceiling center outlet with an enclosed unit made of the well known radiant glass, controlled with switch. One bracket outlet over sink with AGXS Aglite, independently controlled by pull chain, and 50 watt white Mazda lamp. One exhaust fan in ceiling. (Special attention was called to this as the owner had worked out a scheme whereby the fan was concealed and provided with a shutter to close if desired and had used a fan that needed no oiling.) The fan was controlled with switch and "Bulls Eye signal." One duplex wall receptacle or plug near range, one over work table, one single plug at side of kitchen cabinet and one plug in base for electric refrigerator. One 12-000 watt electric range outlet was controlled with switches as required by city ordinance.

Rear Porch—One ceiling outlet with black ceiling band and receptacle, operated at the same time as the center ceiling laundry, boiler room and coal bin lights, with set of three way switches, one in kitchen and one at rear door entrance to basement. One three way switch to control garage and yard lights. One single convenience plug. One door push to operate buzzer in kitchen. The rear porch also contained the light and power cabinets and meters. The bell ringing transformer for bell and buzzers was placed in the light cabinet. The power cabinet had a three pole double throw switch to serve an electric range in kitchen and ironer in laundry. This arrangement made it possible to get a minimum charge of ready to serve for the consumption of one of the largest electrical devices instead of the total wattage of the two.

Laundry—One center ceiling outlet, controlled at head of stairs and in kitchen with three way switches. One ceiling outlet over laundry trays independently controlled at key. One combination duplex plug outlet with red signal light or Bull's Eye and switch to be used for an electric iron or washer.

Fruit Room—One ceiling outlet independently controlled.

Den—Two ceiling outlets of three lights

each, controlled with set of three way switches. One base duplex plug and one wall duplex plug near mantel.

Garage—For each car space there were two ceiling outlets and one in yard, controlled with one three way switch on rear porch, one four way switch at front door of garage and one three way switch at rear door of garage, and one convenience outlet. There was a double garage for each house.

Fixture Market This Month

Final arrangements are now being made for the Lighting Equipment Market and Dealers' Convention in Chicago at the Hotel Sherman, January 21-26, and it is estimated that a record number will be in attendance. The publicity committee under the able leadership of F. C. W. Trott has done a fine piece of work in spreading the message of the affair, and the always active secretary, Charles H. Hofrichter, has played both ends against the middle to influence a gathering more widely representative of all branches of the industry and larger in numbers than any previous occasion could boast of.

A tentative program shows that the following authorities will give addresses on the subjects noted: Robert Parrish, Period Design; W. R. McCoy, Period Design; Robert Zanoth, president, Netting Company, Detroit, Advantages for a Dealer in Promoting the Sale of Glassware; Charles Gainey, Detroit, Sales Skit; Herman Plaut, president, National Council; C. J. Netting, Sr., Results Secured from Talking and Advertising Three Percent; E. R. Gillet, Gillet-Hoehler Co., Toledo, Shop and Selling Costs; and J. C. English, The English Co., Portland, Ore., Methods Used by Dealers for Remunerating Salesmen; and others.

A large number of high class exhibits are to be displayed by prominent manufacturers of practically all nationally advertised lines. At the noon luncheons get together meetings known as the melting pot of the industry will be held each day with special speaking and entertainment features.

An educational exhibit showing stationery, direct mail matter, and helps of all kinds for dealers is to be shown, which will also include books on lighting, design, interior decoration and other important subjects, and the electrical trade publications are to be featured. A "Notice the Lighting Equipment" booth, in which will be displayed all the many and varied uses to which this slogan has been put since its adoption a year or so ago, will be a special attraction.

Planning in Philadelphia

In line with the planning of activities for the new year by various electric leagues, clubs, local associations and other similar city organizations, the Electrical Conference of Philadelphia is counting on a banner year of effort in 1924, according to Secretary Richard H. Silbert.

This body is composed of members of practically every branch of electrical work including inspectors, central station men, jobbers, contractor-dealers, and wiremen. Meetings will be held as they have been in the past on the fourth Thursday of each month, and it is expected that the discussions at these gatherings will be especially interesting to electragists.

Safety Conference

The annual meeting of the Electrical Safety Conference will be held on Wednesday, January 9, at 10:30 a. m., in the rooms of the Associated Manufacturers of Electrical Supplies, 30 East 42nd Street, New York City.

Robert B. Shepard, 109 Leonard Street, New York City, is acting secretary treasurer of the Conference, Dana Pierce having resigned that office when he became president of the Underwriters' Laboratories.

League Festivities

Following its annual custom, the New York Electrical League held its Christmas luncheon on December 20 at the Hotel Astor, and as the rural correspondent would say, a good time was had by all.

The League now has a membership of more than five hundred, and as the wives and sweethearts of the members were also included in these Christmas festivities, there was a capacity crowd present.

The League's previous luncheon was held on the day before Thanksgiving. R. M. Searle, president of the Rochester Gas & Electric Company, was the speaker. As he made his entry into the electrical industry many years ago as an office boy for Thomas A. Edison, he told many interesting stories of the development of electricity.

There were the usual drawings for turkeys, geese, and ducks, and James R. Strong, president of the A. E. I., led the procession to the scene of carnage to the tune of the dead march, after which James M. Wakeman, former president of the League, picked the winners.

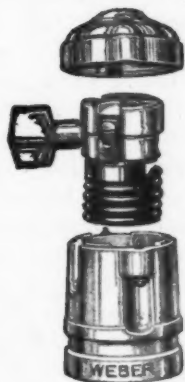
Walter Neumuller of the New York

WEBER DEPENDABLE WIRING DEVICES

Porcelain Sockets

have important advantages over metal shell sockets for bathrooms, cellars, kitchens and other places where dampness, steam, dust or fumes are present. Porcelain does not deteriorate under any of the conditions present in these locations and the finish is indestructible.

Weber Porcelain Sockets



Six
Socket
Bodies

have important advantages over all makes. They are constructed on the same wiring principle as brass shell sockets, and, in many of the various devices, the interior parts are identical with those used in brass shell devices.



And the Line is Complete



Five
Switch
and
Rosette



Twelve
Caps



Sixteen
Bases

On your next order for porcelain sockets, specify WEBER
CONSULT OUR CATALOG

HENRY D. SEARS

General Sales Agent

80 BOYLSTON STREET
BOSTON 11, MASSACHUSETTS

SALES REPRESENTATIVES IN:

New York

Philadelphia
San Francisco

Cleveland
Los Angeles

Chicago

ELECTRAGISTS USE THE PRODUCTS OF ADVERTISERS IN THE ELECTRAGIST

Edison Company is president of the League, and the Christmas festivities were in charge of Grant Armor of the *Electric Journal*.

Activities of I. E. S.

At a meeting of the Illuminating Engineering Society held at the Engineering Society's building in New York City on December 11, it was definitely decided to take up important subjects relating to lighting each month for discussion.

The various committee chairmen will be required to present papers on the questions to be discussed, and each of these chairmen is to become responsible for certain subjects assigned to him, his committee acting as a clearing house for all questions relating to its department.

Representatives from various branches of the electrical industry are invited to join in promoting the work of more efficient lighting. George E. Davis, a prominent electragerist of Newark, N. J., was called upon to represent the electrical contractor interests. Mr. Davis believes that the accomplishments of the I. E. S. will be most beneficial to electragerists, and he hopes that other members of the Association will offer suggestions toward the development of better illumination.

Rocky Mountain Election

The annual meeting for the election of trustees of the Rocky Mountain Electrical Coöperative League was held on Thursday, December 13, at eight o'clock in the evening at the Chamber of Commerce. The efforts of the committee in charge and R. M. Bleak, secretary, to obtain a large attendance were rewarded, and an enthusiastic gathering took place. The names of the new officials could not be ascertained before going to press.

Chase Meetings

In a recent tour of the south Samuel Adams Chase, goodwill promoter of the Westinghouse forces, was the principal speaker at a number of meetings given in his honor attended largely by electragerists and other electrical men.

On November 19 in Tampa, Florida, he spoke before a meeting of the local Electrical Contractors and Dealers' Association on the subject of Live and Help Live, one that has become famous in the industry through his presentation of it on various occasions. His main theme was the need for coöperative competition instead of destructive competition. Another speaker was T. J. Hanlon,

Jr., manager of the Tampa Electric Company. J. L. Brown, of the Pierce-Brown Electric Company, is president of the Association.

A meeting took place in St. Petersburg, Florida, on November 22, attended not only by electrical contractor-dealers but a large number of architects and builders as well. After Mr. Chase's address of the evening much profitable discussion took place looking to closer coöperation of all interests represented. As a result of this meeting one prominent architect said he intended in the future to recommend an installation of at least five convenience outlets per room in an average residence. Byrd M. Latham, manager of the Pinellas County Power Company, was chairman of this meeting.

Electragerist Moves

The Standard Electric Construction Company of New Orleans, formerly at 336 Camp Street, has moved to a new location at 624 Carondelet Street. Robley S. Stearnes, president, is an active worker in electrical organizations of every character and has done much to help the interests of electrical contractor-dealers internationally. He served as national chairman of the present Association of Electragerists from 1916 to 1918 and since acted as an executive committeeman of that body.

The change, advised Colonel Stearnes—as he is familiarly known—is due to the need for larger quarters and improved store facilities, and he said that

the new address is in a more up-to-date and prosperous business section of the city.

The Standard Electric Construction Company, Inc., is one of the oldest electrical concerns in the south. A combined retail and contracting business is done, and the Colonel believes he is in a position to undertake anything that may come up in either in a most satisfactory way. A specialty, however, is the wiring and reconstruction of electrical machinery for industrial plants.

Other officers of the company are: A. C. Carpenter, vice president; A. Nies-trath, secretary; and A. L. Hogan, manager.

Milwaukee Stag Party

On the night of November 23 the Electrical Contractor-Dealer Association of Milwaukee held a stag dinner to which were invited jobbers, central station men and fixture manufacturers in addition to the contractor-dealers.

The affair took place at an inn outside the city limits, which gave it an atmosphere of country privacy and seclusion, and this made for good fellowship on the part of all. A chicken dinner was served, and Charlie Krech, one of the popular electragerists of the city, said this had a turkey one beat a mile from Sunday.

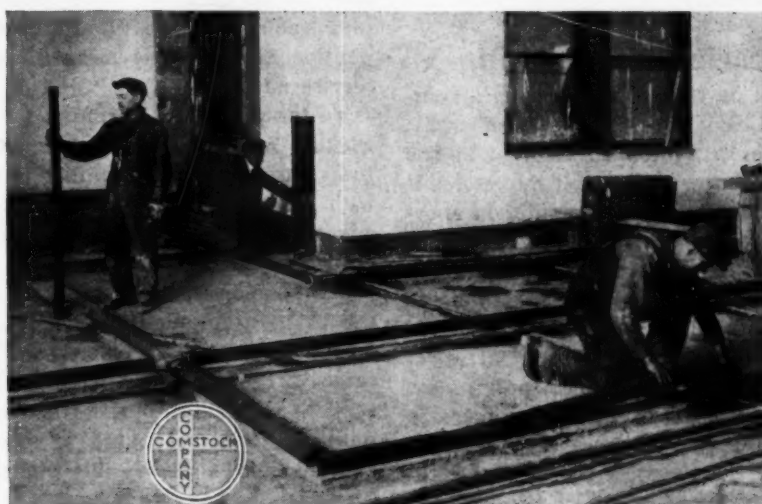
The dining room was decorated for the occasion and one of the novel ornaments was a large revolving crystal ball on which electric spotlights were played. Ladies furnished the entertainment



The Show Windows of the New Store Permit of Excellent Displays, and Colonel Stearnes, the Genial Proprietor, Believes That This One Offers Proof of the Claim

ORANGEBURG UNDERFLOOR DUCT SYSTEM

Orangeburg Underfloor Duct System, Telephone
and Telegraph Building, N. Y. C. Installation by
L. K. Comstock & Co., N. Y.



This electric wiring system provides for the moving van

Office building wiring layouts need no longer be disorganized whenever a moving van backs up to the door with a new tenant.

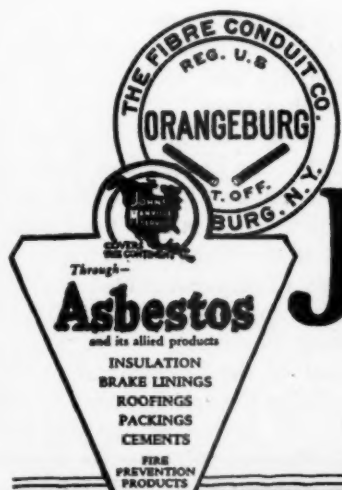
The flexibility of the Orangeburg Underfloor Duct System enables it to conform to every electric service need of the new tenant without the tearing up of floors and unsightly patching which ordinary wiring requires under such conditions.

The grid of duct, imbedded in the floor, can be tap-

ped for outlets at any point by drilling down a small hole which the outlet fills. New wiring for any service can be fished through after the floors are laid. Neither the old wiring nor the floor is disturbed.

This makes the wiring layout as permanent as the building. It is more sightly and more satisfactory.

JOHNS-MANVILLE, Inc.
296 Madison Ave. at 41st St., N. Y. C.
Branches in 61 Large Cities.
For Canada:
Canadian Johns-Manville Co., Ltd.,
Toronto



JOHNS-MANVILLE

Sole Selling Agent

ELECTRAGISTS USE THE PRODUCTS OF ADVERTISERS IN THE ELECTRAGIST

which of course was especially enjoyed on this account. An orchestra kept up the spirit of the gathering, and after rendering various entertainment selections played numerous familiar folk songs which could be sung by everybody. Across the road in front of the inn a large sign was displayed setting forth the word *Electragists* and this was floodlighted.

Hearing on Licensing

A bill on licensing was given a hearing in Charleston, S. C., November 21, and after a prolonged session, at the request of the electrical contractors, it was decided to hold the matter in abeyance for a period of several weeks.

Among the features of the bill was a licensing of all electricians as well as contractors, an examining board to examine applicants to do electrical work, inspection of old buildings, permits for all work, making it unlawful to increase the fuse protection over the rated capacity of wires, all material to be approved by the board of Fire Underwriters, safety work for all houses and a bond required of all contractors.

Hudson Valley League Meets

On December the 4th the newly formed Hudson Valley Electrical League held a dinner and meeting at the Nelson House, Poughkeepsie, New York. Secretary Davis of the A. E. I. was in attendance and reported that there were fifty-three contractor-dealers present.

Chairman Jaminet conducted the meeting and the speakers were President Beale and R. J. Cuniff of the local central station; Roswell Cole of Kingston, president of the League; O. C. Small of the S. E. D.; Earle Whitehorne, commercial editor of the *Electrical World*; and Laurence W. Davis of the A. E. I.

The singing was led by H. F. Barnes, who never fails to arouse a spirit of enthusiasm.

Important League Meeting

New Constitution and Bylaws Adopted by Rhode Island Body

The fall meeting of the Rhode Island Electrical League was an especially important one in that a constitution and bylaws was adopted defining the work of the League, changing certain features of it, and putting it on a more permanent and workable basis. The meeting was held at the Turks Head Club in Providence on November 21, preceded

by a dinner. The attendance was exceptionally large.

F. A. Boss, president of the League, presided and the first matter of business was the report of Harry E. Dawson, secretary. Mr. Dawson called special attention to the contractor service. He said that the object of this service was to give the user an individual character in his dealings. The usual complaint about cut prices and unfair competition can be partly met with special service methods.

To the public the wiring is the same whether put in by an amateur or by a first class electrician so that the man with a service to sell should take full advantage of every opportunity to give his work special identity.

Mr. Dawson laid special stress on the use of the guarantee bond the League is selling to its members. "We all realize," he said, "that it is not necessary to guarantee our work, but the public will be very glad to receive a guarantee signed by the contractor. These certificates will also serve to close jobs where there is competition."

He also stated that if any added features of the service were desired, and they were brought to his attention, he would make investigations into the feasibility of putting them into use. The desire is to be of the greatest possible assistance to the contractors.

He next called attention to the Christmas material the League is prepared to provide its members. By pounding on the slogan, Buy Something Electrical for Christmas, everyone profits because more electrical servants in the home creates more wiring for the contractor.

Each week the League is mailing form letters and wiring circulars to the people who have taken out permits for new houses. Many calls have been made on builders, architects and contractors during which calls the duplex convenience outlet has been stressed. Mr. Dawson also recommended that an advisory committee of three men be appointed to pass on blueprints submitted by architects and builders, and that the service of this committee be advertised to the people who would benefit from it.

He then made a brief report of the Association Island convention, calling attention to the fact that over two hundred representatives of leagues and local electrical clubs were assembled at the meeting. Besides Mr. Dawson, Rhode Island was represented by F. A. Boss and E. L. Milliken.

At the Island meeting he stated that it was brought out that it would be well to affiliate with the Society for Electrical Development, so that there could be a clearing house for ideas and a directing body to help the local councils to steer the ship, and to help prevent the local leagues from making the mistakes they cannot keep from making when there is no interchange of ideas.

In speaking of the second Providence Electrical Home, which closed October 20 after exhibiting to 10,504 visitors at a total expense of \$1,307.19, he said that a better educational job than heretofore was done in emphasizing the special points of interest. The kitchen exhibit was clearly demonstrated and readily grasped by the majority of the visitors. The fixtures were of a type easily obtainable from any contractor. The wiring devices were pointed out with plenty of arrows and signs.

The high school classes in home economics visited the home to the extent of several hundred pupils. There were electrical visitors from several cities and they were favorably impressed. The Worcester Electrical League is to have a home in the Spring and had two committees visit the home at different times to study and take notes.

Mr. Dawson spoke of the success of the exhibit at the Providence Food Show and of the lectures given on one night. In connection with this report, he called attention to the possible advisability of the League holding a big electrical show in the State Armory in the fall of 1924. The food show as managed by the local grocers proved a real success, and there seemed no reason why the electrical interests could not make as great a success of an electrical show. He mentioned that the central stations, the manufacturers, the jobbers, the dealers, the radio interests, the electric vehicles and others could profit from such a show.

Following this report Mr. Boss mentioned that the League now had a program committee which was functioning and which would enable the League to put on more effective programs. The members of this committee are A. H. Allcott, Narragansett Electric Lighting Company, chairman; M. F. Falk, ex-president of the League and president of the Union Electric Supply Company; and L. M. Levine of the Belcher & Loomis Hardware Company—representing the jobbers; E. A. Tefft, John Butler

Ⓣ Type "A" Safety Switches Q / M and Q / B

Many of you Electragists have contracts for maintenance, and all of you continually are constructing new installations in industrial plants.

Modern industrial institutions demand efficiency over and above all else and breakdowns in control apparatus react seriously against the Electragist who is responsible for the installation.

Trumbull Type "A" Knife Switches are known wherever electricity is used. A Trumbull Type "A" Q/M and Q/B Safety Switch is the same old sturdy knife switch with the refinements in box construction so necessary to give absolute protection to life and property.

The Quick Make and Quick Break type insures perfect closing and opening action of Switch; thus making it impossible for a careless or inexperienced operator to leave the blades in partial contact with the jaws with consequent burning and arcing under heavy loads.

THE SPRING



Especially heavy production enables us to offer this quality device at an especially low price.

Bulletin No. 5
on request.

- 1—The endurance of any Quick Make and Quick Break type of Switch depends entirely upon the efficiency of the spring.
- 2—Our springs worked to less than 50 per cent. of their capacity insure long life, easy and positive action.
- 3—The severest kind of endurance tests has failed to show any deterioration in the action of these springs.
- 4—Notice from illustrations how few and free from complication are the parts of this Quick Make and Quick Break mechanism.



The Trumbull Electric Mfg. Co.

Plainville, Conn.

NEW YORK
114 Liberty St.

BOSTON

CHICAGO
2001 W. Pershing Road
ATLANTA

SAN FRANCISCO
595 Mission St.
PHILADELPHIA

"Circleteed is Guaranteed"



of Pawtucket, and A. B. Baxter—representing the contractors; E. Roberts of the Duro Pump Company, and C. D. Morrill of the Beverly Light Corporation—representing the manufacturers; Roger Gordon of Blackstone Valley Gas and Electric Company, Pawtucket, who, with Mr. Allcott, represents the central stations; H. A. Walker of the Walker Electric Company—representing the fixture dealers; and F. A. Boss and F. A. Gallagher, Jr., exofficio members of the committee.

After a short discussion of various subjects, F. A. Gallagher, Jr., read the proposed constitution and bylaws, which, after slight changes had been made, was adopted.

This meeting being considered a joint November and December meeting, President Boss, after the adoption of the constitution and bylaws, appointed the following nominating committee: H. A. Walker, E. A. Tefft, and L. M. Levine.

At the conclusion of the business session those present were instructed and entertained with a couple of General Electric motion picture films. One was an X-Ray film and the other a Mazda Lamp film in which Thomas A. Edison and Dr. Steinmetz played leading roles.

Acquiring Fame

A few months ago this magazine published the story of C. C. Bohn's rise to fame. Mr. Bohn is an electragist who started in business on the present site of the George M. Cohan theatre thirty years ago. At that time his cash capital amounted to \$40 in all. Today he owns the New York building which he occupies with a high class electrical store.

In one of its Sunday issues last month the New York *Tribune* published a long article setting forth the foregoing facts, embellished with a number of interesting side lights on the conditions that existed in the electrical industry thirty years ago. And thus has THE ELECTRAGIST helped Mr. Bohn to acquire fame throughout the land.

Prices Revised Downward

Frank E. Watts, director of distribution and publicity for the Apex Electrical Distributing Company of Cleveland, recently announced that his company was making a complete revision downward of prices on the appliances which they manufacture, effective January 1.

The Apex vacuum cleaner is reduced from \$57.50 to \$47.50, with a trade in allowance of \$10. The Rotarex copper

washer at \$167.50 is now \$155; the galvanized washer at \$152.50 is now \$137.50. The Rotary ironer which was \$152.50 is now \$137.50.

This will be welcome news to those who contend that appliance prices are too high, and will be recognized as a start in the right direction. Whether or not other manufacturers will follow this lead is now being discussed in the trade.

Lighting Outlook Good

The Society for Electrical Development reports most gratifying progress made and results attained in its residential aid commercial lighting activities during 1923.

The first of its extensive campaign material, produced during 1923 for all branches of the industry participating in lighting activities, covered in its entirety the improving of lighting of the home. Room by room, from kitchen to attic, plans and specifications were given for advancing the standards of home illumination to the high level of efficiency and beauty to which it rightly belongs.

It is interesting to note that the kitchen lighting movement which is sweeping the country at the present time represents the logical evolution of a survey of the potential possibilities of residence lighting, together with the concentration of all interested commercial forces on this limited, yet highly important part of the home.

Outstanding kitchen lighting campaigns, such as those put on at Hartford, Conn., and Charlotte, N. C., and other extremely successful drives, prove that the public is already sold on better residence lighting, and that continued efforts to improve the lighting standards in all rooms of the house will be rewarded.

The Society's commercial lighting material, devoted to the improvement of lighting standards for store window and interior, has met with a most remarkable response, and to date over 300,000 pieces of store lighting campaign literature have been sold to electrical co-operative organizations and individual companies interested in engaging in this lucrative form of activity.

General commercial lighting campaigns have been run, and are being planned on an unprecedented scale. From Salt Lake City, Boston, Philadelphia, New York, and other cities come reports which indicate that the merchant is now fully aroused to the possibilities of increasing his business by Better Store Lighting. Now is the time for all interested branches of the industry to

plan their lighting activities for the next twelve months so that they may ride on the wave of public interest and enthusiasm in better lighting to best yet business during 1924.

An Electrical Christmas

As evidence that electragists appreciate the advantage of offering electrical goods for holiday gifts, many examples of good holiday advertising were noted during November and December.

The Beltzhoover Electric Company of Cincinnati issued an attractive mailing folder printed in red and green, listing many such useful gifts. It was captioned What Shall I Give for Christmas, and illustrated everything from a curling iron to a vacuum cleaner, giving brief descriptions and prices.

Under the direction of the Electrical Co-operative League of Denver, men and materials were provided to insure good holiday window displays, and it is reported that many contractor-dealers took advantage of this service.

The first 1924 calendar received last month was from Louis M. Ligrest of the Lig-Bel Company, Philadelphia electragists. It bears the emblems of the A. E. I. and the S. E. D., is of convenient size, and shows the preceding and following months, as well as the current month, on each sheet.

Denver League Home

It is estimated 8,982 people inspected the last Denver electric home at a cost of 12 cents each to the Co-operative League, under whose auspices it was exhibited. The exhibit was closed officially November 27, although the original plans called for the closing on the 25th, as it was realized that many had not been able to inspect it up to that time and was kept open two extra days on that account.

Contrary to the system employed in the case of the League's first home which was shown more than a year and a half ago, the expense of the construction was borne by a building and investment company of that city inasmuch as the home was built for a private family and was not offered for sale following the exhibition.

Furnishings and decorations were provided by a Denver concern as was the case also of the electrically operated musical equipment. Approximately 45 electrical appliances and lamps were provided by jobber and distributor members of the Denver League, as a result of appliance drawings, and were placed

Hasn't This Contractor Solved Your Problem?

Letter received from
R. B. Cole, San Bernardino, Cal., says:

"I have installed a lot of other makes of switch and outlet boxes, but find none of the other makes quite so good as the "Gem" and "Union."

"What I like about your switch and outlet boxes is that I find they are true to size, screw holes are accurately tapped, knock-outs are easy to drive in, and the boxes are substantially built."

"It is easy to do good work when using your boxes, and I cannot say as much for some other makes that I have used."

Just as every mother thinks her child the prettiest, every manufacturer naturally claims his switch and outlet boxes are the best. Therefore, however truthful we may be in making the same claim, it stands discredited to a certain extent.

But when a disinterested man like Mr. Cole makes such a statement, you can hardly doubt his word. And there are hundreds of other contractors who will tell you the same thing. We gladly let them speak for us.

We'd like to send you our Catalog No. 29. Write for it today.

NOTICE TO JOBBERS AND DEALERS

"Gem" Switch Boxes are protected by U. S. Letters Patent.

Beware of imitations. All infringers will be vigorously prosecuted.

The genuine boxes bear our trade mark "GEM" and are packed in individual green cartons bearing the name.

"GEM"

SECTIONAL SWITCH BOXES

Covered by U. S. Patents Nos. 950 502
March 1, 1910, and 1016925 Feb. 13, 1912.

Chicago Fuse Mfg. Co.

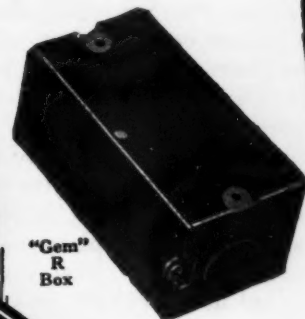
Manufacturers also of Cut-out Bases,
Fuse Plugs, Fuse Wire, Automobile Fuses,
Renewable and Non-Renewable Fuses.

CHICAGO

NEW YORK



"Gem" F Box

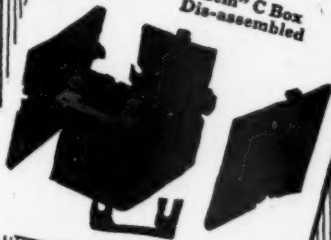


"Gem" R Box

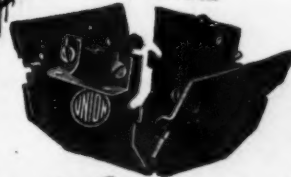
"Gem" B S Box
Showing Type R
Bushing



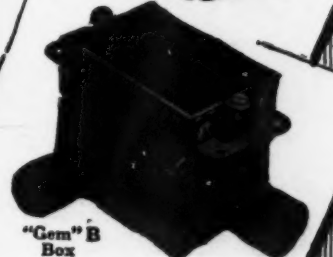
"Gem" C Box
Dis-assembled



"Gem" F C Box



"Gem" B Box



ELECTRAGISTS USE THE PRODUCTS OF ADVERTISERS IN THE ELECTRAGIST

about the home, which consisted of five rooms only and a finished basement with laundry and den. The electrical home was advertised as a modest home in order to combat the theories of some that wealthy classes only could afford electrical conveniences and complete wiring. Exhibition hours were from 3 P. M. to 9 P. M.

Double page spreads appeared in the larger of the local newspapers in advance of the formal opening, in addition to a special 12 page supplement in one of the smaller papers. Also small ads were carried in the various newspapers during the exhibition. More than two and one half times as much free reading matter, dealing specifically with the location of the home, the Electrical Co-operative League as the exhibitors, and the features of the electric home, was obtained as paid advertising. Advertising was supervised by the advertising and publicity committee, with A. C. Cornell as chairman. The general arrangement of the home was in charge of a special committee headed by D. D. Sturgeon.

The exhibit was advertised as "A modest bungalow that people of average means can afford!" "Modest costs, modern comforts!" "A bungalow full of convenience," and "An education to see just what ease and beauty adequate electric wiring can put into a modest home." Copies of "My Own Electric Home," obtained from the Society for Electrical Development, were distributed to all visitors at the home.

Volunteers from the industry served as attendants and lecturers. In every room they especially emphasized the modest cost of the wiring installations which consisted of 78 outlets, as follows: 21 convenience duplex type; 25 switch outlets; 32 lighting (10 bracket and 22 ceiling). Included were six sets of three way switches.

According to O. L. Mackell, chairman of the Electrical Co-operative League, a

large number of visitors at the electrical home proved themselves familiar with the wiring features. Many said they had inspected the first home and expressed a preference for the second over the first.

An interesting comparison between the first and second home was afforded in connection with the peakload attendance, declared S. W. Bishop, executive manager of the Denver League. In the first home, twice as many people passed through at night as in the afternoon.



Crowds Waited in Line to Inspect the Home Each Afternoon

The condition was reversed however in the last home, and the season of the year was explained as being responsible for the difference. In the first case visitors waited at night while in the second the waiting was done in the afternoon. It was found that a larger number of women visitors attended the afternoon exhibitions.

Women manifested the greatest interest in the kitchen and laundry which were described by the attendants as being the most important rooms in the home, electrically speaking. Men, on the other hand, interested themselves largely in the den, living rooms and sleeping rooms.

The home was located at 1635 East Seventh Avenue, one of the principal residential thoroughfares, and was within easy reach of all parts of Denver. Two street car lines served to accommo-

date all visitors. From a spectacular standpoint the exterior of the home was dressed in a blaze of light at night by means of flood lights. Supplementing these were strings of colored lighting effects extending in both directions from the home on Seventh Avenue.

Except for the last day of the exhibition, which was marked by a snow flurry, ideal weather conditions prevailed throughout.

Washington League Active

Lively Program Planned to Promote Things Electric in Capital City

Electrical happenings in Washington, D. C., for the next few months are bound to be influenced by the work of the Electric League, formed last spring for permanent work in connection with the advancement of things electrical in that city and vicinity. This organization has many accomplishments to its credit, an important activity in the past being the splendid co-operative effort it put forth in order to make the last annual convention of the Association of Electragists the success that it was. G. P. Mangan, president, is optimistic of the future and he advises of plans to be undertaken as follows:

We have several committees formed and they are working together very satisfactorily. Our committee on electric houses expects to have an electric home in operation in the early spring; in fact, we are now working on the details in connection with the plans of the home to be erected by a development company in this neighborhood.

The committee on Standardization of Wiring is making plans to lay before local building operators and others, including of course the electrical contractors, to persuade owners of houses to provide adequate wiring. Of course the work of the two aforementioned committees is necessarily somewhat in a preliminary state.



Every Electrical Household Convenience Was to be Seen in the Electric Home Exhibited by the Denver League. The Electric Laundry is Shown on the Left. In the Center Can be Seen One End of the Electric Dining Room, and on the Right the Living Room is Pictured Completely Equipped Electrically

Both sides of the story

CENTRAL STATION

Every electrical service installation must effectively

- 1—Prevent personal and property hazards.
- 2—Safeguard revenue.
- 3—Simplify meter maintenance.
- 4—Afford the consumer proper facilities for the control and protection of his *distribution* circuits.

The Noark Universal Service Switch perfectly meets these requirements.

The JOHNS - PRATT COMPANY,

BOSTON
161 Summer St.
PHILADELPHIA
22 So. 15th St.

CHICAGO
35 So. Desplaines St.
PITTSBURGH
104 Sixth St.

CLEVELAND
1365 Ontario St.
ST. LOUIS
314 N. Broadway

160 Huyshope Avenue
Hartford, Conn.

NEW YORK
41 East 42nd St.
SAN FRANCISCO
74 New Montgomery St.

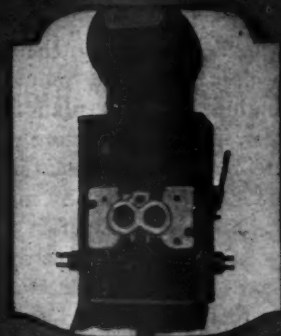
EXPORT DEPARTMENT, 30 Church St., New York, N. Y., U. S. A.

CONTRACTOR

As the installer of the electric service and distribution equipment, he is vitally interested in the requirements of both the consumer and the central station. By no means, other than the use of the Universal Service Switch, can he meet these requirements with the same degree of safety, simplicity, and convenience in service. And he can supply and install a Universal Service Switch at a *lower cost* for material and labor than with any other arrangement to produce results even approximately equal.



CONSUMERS
FUSES



UNIVERSAL
SERVICE SWITCH
(Standard)

- THE** Perfected Service Entrance Device, consolidating the meter service and distribution devices in a single unit and providing —
- All Service Essentials —**
1. Enclosure of all live parts
 2. Externally operated safety service switch
 3. Service cutout
 4. Insurance against meter tampering and current theft
 5. Meter connection block
 6. Meter testing device
 7. Lock-Off for Service Inspection
- With these Distribution Essentials —**
8. Distribution branch block
 9. Enclosure of all branch circuit wire connections
 10. Enclosed yet readily and safely accessible branch circuit fuses

ELECTRAGISTS USE THE PRODUCTS OF ADVERTISERS IN THE ELECTRAGIST

Our committee on Coöperative Advertising has been actively engaged arranging for Christmas advertising, in addition to our regular electric page in one of the local papers. Prospects for this work are very good and we expect the amount of advertising and the results therefrom to be very satisfactory. This committee also arranged with the various dealers to dress their Christmas windows with the materials and according to the plans of the Society for Electrical Development.

Our meetings are very well attended and our members are very enthusiastic about the League. We endeavor to have the meetings cover the necessary business and usually have a speaker to give a talk on a subject of particular interest to wiring contractors and fixture dealers. At one of our recent meetings a local lawyer spoke on the subjects of contracts and liens, and we had a brief of his speech prepared and sent to all members of the League. We believe this is very instructive work as it will inform members of ways in which they can protect themselves in contracts and liens and at the same time avoid possible misunderstanding with customers.

Electric Fixture Campaign

How a Progressive Central Station is Promoting Business for Electragists

So much attention has been given to appliances during the past few years that even wiring was for a time neglected. It has been rather a long time since a great deal of attention has been given to better lighting, except in a very general way. However, the Blackstone Valley Gas and Electric Company—operating plants in the Northern part of Rhode Island, including Pawtucket and Woonsocket—is awake to the importance of giving good residence lighting direct attention if the industry is to be best served.

A campaign recently carried out was conducted in coöperation with the electrical contractors. A feature of the manner in which this company coöperates is to call meetings of the contractors and discuss the details with them before working out plans. This serves to bring out the points that might not prove entirely agreeable to the contractors and in making plans that are really coöperative and not merely plans of the central station, the carrying out of which the contractors are asked to aid.

The last campaign started the middle of November and continued to Decem-

ber 8. The object was to stimulate the fixture business and to encourage electric current users to use more efficient and decorative fixtures in their homes.

When one visits houses that were wired back in the days when electric lights were something entirely new, he begins to realize that there is need of work of this nature. Residence electric lighting in some instances is becoming almost as antiquated as was much of the residence gas lighting at the time when the electrical industry began to compete with gas companies for the lighting business.

As a result of meetings held with the dealers it was decided to sell a popular fixture, complete with silk shade, the price to be \$24.75 with a 75 cent payment down and \$2 per month until the fixture was paid for.

The additional charges tentatively decided upon were \$5 extra for a wall switch and \$1.25 extra for a canopy pull switch installed in connection with the fixture. These prices, however, were subject to change in case the majority of the contractors participating in the campaign wished to do so later. This provision was made to take care of any conditions which might arise causing the cost of installing the switches to exceed the estimated cost.

The Blackstone Valley Gas and Electric Company delivers the fixtures to those coöperating with it on consignment. The contractors are not asked to make any investment in fixtures. Neither are they asked to carry the accounts. The sale of both fixtures and switches is financed entirely by the central station. The terms also remain the same. The customer pays 75 cents down and \$2 a month regardless of whether the fixture merely is bought, or the fixture and a switch.

As soon as the installation is completed, the company pays the contractor the full amount of the contract less a nominal carrying charge, and collects from the customer on the partial payment plan already explained. All sales, however, whether made by the central station salesmen or by the contractors, have to be passed upon by the central station credit department if they are to be included in this plan.

Another feature about the recent campaign was the advertising. After a good deal of discussion it was decided that if the campaign was to prove really coöperative, a pool should be made to cover the newspaper advertising. The contributions to this pool

were fixed at \$25 per participant. This amount was not so large but that the sale of a very few fixtures would cover it, and there was reason to believe that the advertising would much more than pay for itself.

This participation in the advertising cost means that the participants in the plan have much more to say about the advertising than would be the case if it was financed entirely by the central station company. It means that the advertising is really coöperative advertising. The name of each dealer and contractor participating appears in each advertisement and everyone is encouraged to advertise independently of this coöperative campaign in order to get the most out of the sales plan.

The Blackstone Valley Gas and Electric Company plans the advertising, subject to the approval of the coöperative group, orders the fixtures and takes care of all the details connected with the sale. It also carried on a correspondence campaign with the dealers and contractors qualified to participate and a representative of the company called in person upon all of them. There was just as much effort put forth to sell the idea to all those interested in it as to sell the fixtures to the public. This was done notwithstanding that the plan was worked out as a result of meetings held with the contractors and dealers.

The central station company assures the contractors and dealers that it has no intention of going into the fixture business, but is merely making a coöperative effort to raise the standard of illumination in the homes. It is working with and not against the contractors and dealers, and is endeavoring to create a demand that will result in a great deal of future profitable business.

It has already been demonstrated that it pays the electric lighting company to get together with the contractors and dealers and to discuss plans before formulating them in their entirety. By so doing different points of view are obtained and the plan finally decided upon is better and more workable. For this reason the Blackstone Valley Gas and Electric Company makes it a practice to really coöperate rather than to work plans out by itself, and then pass them on to the contractors and dealers for them to take or leave as they deem best. The wiring plans of coöperation are worked out in very much the same manner as this fixture sales plan has

Good
Goods
In



A
Good
Package

An "X-Ray" view of the

NEW "4 in 1" CARTON

Four regular shipping Cartons in one sturdy Container, adds greatly to the convenience in handling and stocking.

No change has been made in the Quality or Price.

ALPHADUCT COMPANY

136 Cator Ave.,

Jersey City, N. J.

Concerning a Product and a Trade Mark—

WIRING



DEVICES

The idea back of the "DIAMOND H" Trade Mark—

THOROUGHNESS — QUALITY — SERVICE

Thoroughness in design, materials and construction can alone produce quality. Nothing but quality can give service. Nothing but a service-giving capacity can create a permanent and growing business.

In the "Diamond H" trade mark this company has aimed to symbolize the utmost of value to the electrical contractor.

THE HART MANUFACTURING COMPANY

HARTFORD, CONN.

NEW YORK
CHICAGO

BOSTON
LOS ANGELES

DETROIT
CLEVELAND

DENVER
LOUISVILLE

TORONTO,
CANADA

ELECTRAGISTS USE THE PRODUCTS OF ADVERTISERS IN THE ELECTRAGIST

been, and they work to the advantage of everyone concerned.

This last campaign was conducted in the Pawtucket division of the company only. It was the first of a series of Better Fixture Campaigns which will be conducted if this one has proved a success. The company is not going to participate in the profits on the sale of fixtures. All sales made directly by the company will be distributed in rotation to the electracist coöperating, and all profits will accrue to them.

Milwaukee Toast Campaign

In line with the Toast for Breakfast campaign and other similar movements in progress throughout the country to stimulate the sale of electric toasters and at the same time relieve the critical wheat situation resulting from an over-production, Milwaukee interests have formed a Toast Campaign Committee composed of three men, and C. M. Jamison, superintendent of the Milwaukee Electric Railway and Light Company, is serving on behalf of the electrical firms.

Electragists are tying in with the undertaking, which they recognize not only as an opportunity to create valuable goodwill among their customers but to make sales of electric toasters to prospects who have been influenced to eat more toast through the campaign and who buy toasters from the electric dealers who are coöperating. Local newspapers have promoted the work in a generous way.

S. E. D. Appointments

To render a more personal and intimate service to the electrical industry of the Pacific Coast, the directors of the Society for Electrical Development have authorized the establishment of an office at 527 Rialto Building, San Francisco, Cal. Samuel H. Taylor, formerly president of the Electrical Railway and Manufacturers Supply Company of San Francisco, has been appointed manager and will continue to serve as secretary of the Pacific Coast Electrical Association.

Frederick N. Dodge, formerly sales manager of Geo. W. Smith & Company, Inc., Philadelphia, has joined the staff of the Society. At one time sales promotion manager of the Fairbanks Company, New York, Mr. Dodge was more recently connected with The Dort Motor Car Company of Flint, Michigan, first

as assistant advertising manager with the factory organization and afterward as sales manager of the Cleveland and later the Philadelphia distributing houses.

Meeting at Schenectady, N. Y.

The electric section of the Empire State Gas & Electric Association met in Schenectady November 21 and 22. In order to avoid conflict with meetings of the N. E. L. A., it had been decided to hold these sessions in the fall, rather than the spring, as was the previous practice, and this meeting was the first of those on the new schedule. E. P. Peck of the Utica Gas and Electric Company, and chairman of the section, presided.

Appliance Rating Board

A development of the Public Service Company of Colorado under the management of Superintendent Joe Lang and Manager Frank Henderson at its western branch in Boulder is what is known as an Appliance Rating Board. Its purpose is to demonstrate to customers the cost in cents per hour, at the prevailing lighting and power rates, of the different lamps and appliances used. Thus it is of great value in eliminating customer complaints and in increasing sales.

It consists of a board 27 by 36 inches, on which are mounted seven sockets for various size lamps, one bell transformer and buzzer, one eight gang flush type switch plate which controls the lamps and transformer, two convenience outlets, one of which has a switch and pilot lamp with it, one integrating watt hour meter, and one switch-

board type watt meter. This watt meter has been calibrated in cents per hour instead of watts. It has a double scale, one of which reads in cents per hour at the lighting rate and the other in cents per hour at the power rate.

Few people it is believed know how inexpensively lamps and appliances can be operated, and the Appliance rating Board in demonstrating this to them also encourages the use of lamps of higher wattage.

New House Organ

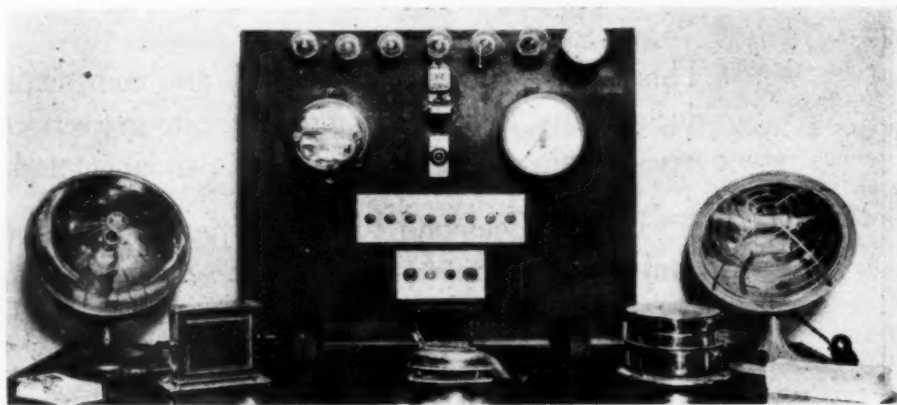
William J. Wheeler, vice president of the Maintenance Company of New York City, sends in a copy of the initial number of that progressive company's house organ. He states that it will be a monthly publication and that it is issued for the purpose of keeping in contact with customers and prospects.

The title of the house organ is The Minute Man, with a sub title, For Every Kind of Electrical Service, and from the contents and appearance of the first issue, it will make many friends for the company it represents.

Goodwin on Western Trip

William L. Goodwin, operating vice-president of the Society for Electrical Development has recently returned to New York from California where he conferred with S. H. Taylor, Pacific Coast representative of the Society, regarding ways and means of better serving the industry in that territory.

Mr. Goodwin found that although the Pacific Coast office had been in operation but a short time, it was functioning most effectively in the interests of the Society's members on the Coast.



Cost of Operating the Various Appliances Can Be Easily Demonstrated to the Customer Through the Use of This Rating Board

RAVEN CORE—A Rubber Covered Wire of Distinction!

Made by a house of standing.

Specified by all the leading architects.

Used by the Contractors who do the better grade of work.

Can you afford to overlook it?

NEW YORK INSULATED WIRE CO.

Main Office: NEW YORK

Factory: WALLINGFORD, CONN.

Agencies and Branches:

DENVER

LOS ANGELES

CHICAGO

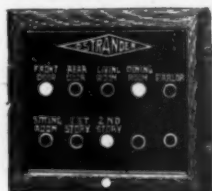
BOSTON



Gravity Drop



Needle Drop



Target Drop

HOUSE ANNUNCIATORS



ANNUNCIATORS

Our Annunciators have stood the test of over 30 years of exacting service. We also manufacture Hospital, Lamp, Burglar Alarm, and Fire Alarm Types. They are designed to operate on battery or transformer current, and can be supplied with wood or metal cases.

Our Engineering Department is prepared to design any Special Annunciator to comply with your requirements.

W. R. OSTRANDER & CO.

MAIN OFFICE:
371 Broadway,
New York

FACTORY:
83-89 Clifton Place,
Brooklyn, N. Y.

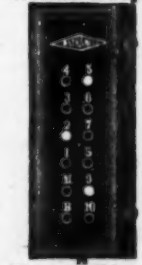
ELEVATOR ANNUNCIATORS



Gravity Drop



Needle Drop



Target Drop

ELECTRAGISTS USE THE PRODUCTS OF ADVERTISERS IN THE ELECTRAGIST

News Notes Concerning Electrical Contractor-Dealers

Business Changes, Store Improvements and New Establishments Opened

Watertown Radio Service, Incorporated, has established headquarters at 102 Charlebois Building, Watertown, New York. Incorporated capital, \$10,000. Incorporators: Attorney H. B. Donaldson, Watertown, and others. Sample copies of trade papers regarding radio equipment are requested.

The Mueller Electric Company, in the electrical contracting and fixture business, is locating at 430 West Slauson Street, Huntington Park, California. Estimated worth of concern, \$25,000.

O. M. Beal Appliance Company has opened a new store at 27 South Ninth Street, Noblesville, Indiana.

The Service Appliance Company, Incorporated, with main office at Schenectady, New York, has opened a branch store at 79 North Pearl Street, Albany, New York.

Progress Electric Company announces the opening of an electrical fixture and appliance business at 1148 West Van Buren Street, Chicago, Illinois. Incorporated capital, \$10,000.

Hubbard Radio Company will feature an extensive line of electrical and radio supplies at 308 Main Street, Danbury, Connecticut. Estimated worth of concern, \$10,000.

United Electric Stores Company, in the electrical supply business at 109 Montgomery Street, Newark, New Jersey, is opening a branch store at the Case Building, 233 West 42nd Street, New York City.

Wilmington Electric Specialty Company, Incorporated, formerly located at 912 Orange Street, has moved to 405 Delaware Avenue, Wilmington, Delaware, where a complete line of electrical supplies will be carried.

Tilley Radio Corporation has established headquarters at Providence, R. I. Incorporated capital, \$10,000. Incorporators: H. H. Tilley, East Providence, and others.

M. D. Reddock and Company will conduct an electrical supply and radio business at 227 Flatbush Avenue, Brooklyn, New York. Incorporated capital, \$10,000. Incorporators: Attorney M. H. Katz, 305 Broadway, New York City, and others.

Fisher Electric Company has opened an electrical contracting and appliance business at the Ferguson Building, Pittsburgh, Pennsylvania. Incorporated capital, \$10,000. Incorporators: H. B. Fisher, 634 Shady Boulevard, Pittsburgh, and others.

Amco Radio Stores of which Attorney M. Levey, 115 Broadway, New York City, and others are incorporators, will feature an extensive line of radio supplies. Incorporated capital, \$20,000.

The Sheffield Electric Company announces the opening of a new store at Homestead, Florida, where electrical supplies will be handled.

Service Appliance Company, Incorporated, is open for business at 310 Broadway, Troy, New York.

The Southern Radio Corporation of Texas located at 608 West Evergreen Street, San Antonio, Texas, will start work on a new two-story store building to cost \$15,000, which it will occupy as soon as completed. Radio and electrical equipment will be carried. Incorporated capital, \$35,000. Incorporators: J. C. Rodriguez and others.

Community Radio Stores, Incorporated, announce the opening of a new radio and electrical supply store at 2046 Jerome Avenue, Bronx, New York City.

Mitchell Electric Company will conduct an electrical appliance business at 17 South Third Street, Sunbury, Pennsylvania.

Ulrich and Company of which O. W. Swift, 68 William Street, New York City, and others are incorporators, will feature a complete line of electrical appliances. Incorporated capital, \$25,000.

Electric Service Station Incorporated, an old established concern, is conducting an electrical supply business at 812 Carondelet Street, New Orleans, Louisiana. Incorporated capital, \$25,000.

Jersey Electric Company, Incorporated, has established headquarters at 140 Fourth Street, Union Hill, New Jersey. Incorporated capital, \$35,000. Incorporators: W. A. Winter, 2543 Grand Avenue, New York City, and others.

Radio Service Company, Incorporated announces its opening at Bridgeport, Connecticut. Incorporated capital, \$50,000. Incorporators: Robert W. Kutcher, 511 Clinton Avenue, Bridgeport, and others.

The Midwood Radio and Electric Company is locating at 1406 Avenue J, Brooklyn, New York. Formerly at 929 East 14th Street, Brooklyn.

B. and R. Electrical Company will conduct an electrical supply and appliance business at 21 Grant Street, Denver, Colorado. Incorporated capital, \$50,000. Incorporators: E. V. Beck and others.

Noyes Electrical Supply Corporation of which Attorney L. Friedman, 1540 Broadway, New York City, and others are incorporators, will feature an extensive line of electrical supplies. Incorporated capital, \$50,000.

F. W. Rust and Company, Incorporated, formerly located at 218 Columbia Avenue, Seattle, Washington, has moved to the Campbell Building, Fourth Avenue and Columbus Street, Seattle, where a complete line of electrical supplies will be carried. Estimated worth of concern, \$75,000.

Radio Telephone Corporation has established an electrical supply and radio business at 3104 Woodward Avenue, Detroit, Michigan.

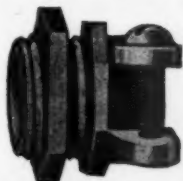
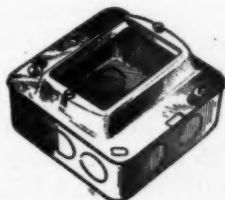
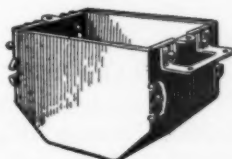
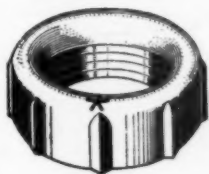
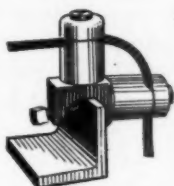
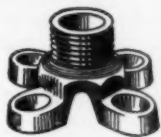
Home Electric Service Company announces the opening of an electrical appliance and lighting fixture store at 205 Jackson Street, Fairmont, West Virginia.

The Reed Radio and Electric Company, in the radio and electrical supply business at Uniontown, Pennsylvania, has opened a branch store at 113 North Pennsylvania Avenue, Greensburg, Pennsylvania.



It Must Not be Presumed That Kay Ingerslav, the Chinese Representative of the Westinghouse Forces, Does Not Practice What He Preaches in the Matter of Rapid Transit—Even From This Picture

STEEL CITY PRODUCTS



THE installations you make—the service you render—and the profits you receive are dependent upon the quality and economy of the materials which you use.

WHEN STEEL CITY conduit fittings are used in your installations, you are giving your customers the utmost in quality and at the same time decreasing labor costs to the minimum which aids very materially in causing the job to show a profit for you.

STEEL CITY Products are quality products—but produced at a price which permits quality and economy to meet on the same job.

Complete stocks are carried by your jobber or can be secured through our nearest representative.

Write today for your copy of our new Catalog No. 34.

Steel City
PITTSBURGH



Electric Co.
PENNSYLVANIA

Everywhere!

Wherever an electrical wiring job calls for the utmost in service and quality — there you will find Sherarduct. Because Sherarduct has proved its superiority in thousands of structures large and small throughout the entire world.

Send for literature and prices.

**National
Metal Molding
Company**

1052 FULTON BLDG.
PITTSBURGH

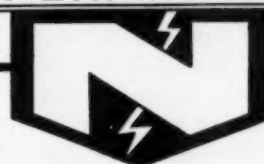
Represented in All Principal Cities

Sherarduct

RIGID CONDUIT



SHERARDUCT



(8)

ELECTRAGISTS USE THE PRODUCTS OF ADVERTISERS IN THE ELECTRAGIST



New Attachment Device

Encouraged by the wide appreciation of its recently developed line of Armored Cord Grip attachment plugs, The Arrow Electric Company of Hartford, Conn., has extended this feature to other devices.

A Porcelain Socket Cap and a Brass Shell Socket Cap with Cord Grip have been brought out, and the development has also been extended to pull switch rosettes, aluminum sockets and reflector sockets as well as cord connectors, motor plugs and attachment plugs.

Where attachment plugs are yanked out by the cord, where sockets hang in reach of machine operators, and where



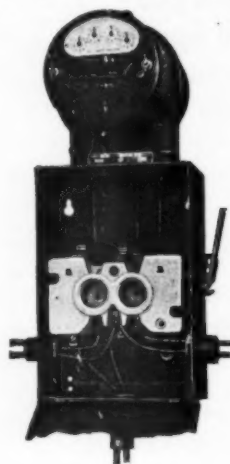
heavy fixtures are swung by a cord from the ceiling, the use of the Arrow-Grip feature is particularly desirable, as this takes the strain off binding posts and prevents shorts from frayed wires. Although suitable especially for cord from $\frac{3}{8}$ inch to $\frac{1}{2}$ inch, Arrow-Grip devices can be furnished for cord of smaller size.

Universal Service Switch

Realizing the problem of developing electric service entrance equipment which would combine maximum safety and utility with economy, the Johns-Pratt Company of Hartford, Conn., has placed on the market a device known as the Noark Universal Service Switch, which it is felt combines in a single unit everything required by this three sided problem.

By means of the Noark Universal Service Switch improper fusing or the elimination of main service fuses is prevented. Branch circuit fuses are enclosed yet easily accessible to the consumer. A particular feature is that the side fuses are sealed and made inaccessible to the consumer. The consumer can renew his own fuses, but is

effectively prevented from endangering his own property through improper re-

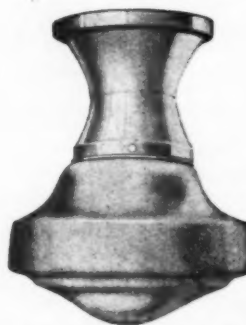


placement or removal of service side fuse protection.

This switch can be used for single phase and direct current two-wire and three-wire service in 30-ampere size and is designed for use only with plug fuses. All standardized endwalls, adapters, troughs, and bushings may be used with this device.

Kitchen Lighting Unit

The F. W. Wakefield Brass Company, of Vermilion, Ohio, announces a new porcelain enameled unit for kitchen lighting. The socket, correctly positioned, is attached to the ceiling by a dieformed metal strap, and the wiring connections are made to this skeleton. The combination canopy and holder,



which is of heavy porcelain enameled steel, is then slipped into place and is held firmly and snugly against the ceiling by two bayonet screws. Two lugs

and a single set screw hold the glass-ware.

By this construction the company declares that the time required to wire and hang and glassequip its fixture is reduced practically one-half. Samples of the unit are now being placed in the hands of the trade.

Attractive Display Carton

A fancy display carton has been made up by the Killark Electric Manufacturing Company of St. Louis, in



which to sell its bell ringing transformers to the trade for displaying to the public. It contains spaces for five of these devices and is designed for use either on the counter or in the show window.

Induction Volt Regulator

The General Electric Company has developed and has in production as of January 1 a new design single phase induction voltage regulator. Several desirable features are emphasized in the design of this regulator, among which are a tank which is highly resistant to rupture; a mechanical structure of increased rigidity with a view of decreasing noise; coils with improved bracing to prevent insulation trouble due to line short circuits; greater accessibility of operating mechanism, and improved voltage regulation due to the more rapid correcting of voltage changes.

Ornate Light Equipment

In the accompanying illustration of a unit developed by the Beardslee Chandelier Manufacturing Company of Chicago is shown a luminaire for hotel lobbies, banks, churches, or other buildings where the interior decora-

BARD-PARKER Wire Insulation Stripper

(WOOD PATENT)



**CAN
STRIP
1200
ENDS
AN
HOUR**

No. 1 TOOL

Regularly Equipped with 3 hole blades for size No. 11 and smaller. Interchangeable single hole blades for any special size desired also supplied when specified.

Write for particulars.

\$5.00
F.O.B.

NEW YORK

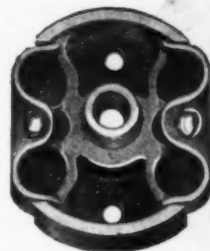
BARD-PARKER COMPANY, Inc.
150 Lafayette St., New York City

A NEW RULING

The New Code Ruling

Reads

**"LOOM MUST BE SECURED TO
BOX OR PLATE"**



← Note the
Clamp

No. 567
StudNo. 568
Combination

**"T & B"
CLAMP LOOM BOXES
CONFORM
WITH THIS REQUIREMENT**

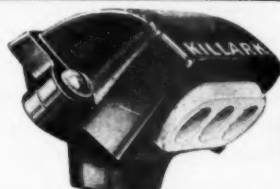
You will find this Box **EASY TO
WORK** on OLD or NEW jobs.

*Sample Gladly Furnished upon
Request*

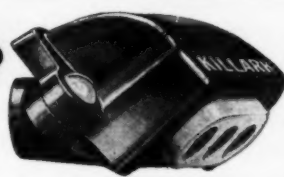
*Order by the "T & B" Number
from your Jobber*

THOMAS & BETTS COMPANY
63 Vesey St.,
New York City

10 High St.,
Boston, Mass.



On a Vertical Conduit
½ Inch to 2 Inches



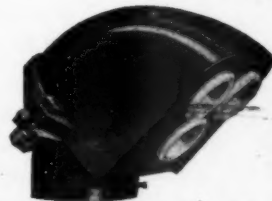
On a Horizontal Conduit
½ Inch to 2 Inches

**Electrical Contractors Like the
"Electrolet" Entrance Fitting, Because:**

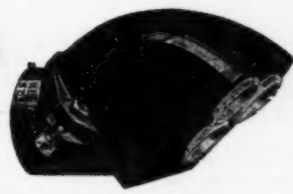
- It can be used on any kind of entrance, ½-inch to 3 inches.
- It comes assembled; there are no parts to buy separately.
- There are only two screws to be tightened.
- The porcelain is not held on with screws, to be snapped in two at the last twist of the screwdriver.
- It is weatherproof, and has the Underwriters' approval.

Order from your Jobber

KILLARK ELECTRIC MFG. CO.
3940-48 Easton Avenue
St. Louis, Mo.



On a Vertical Conduit
2½ and 3 Inches



On a Horizontal Conduit
2½ and 3 Inches

ELECTRAGISTS USE THE PRODUCTS OF ADVERTISERS IN THE ELECTRAGIST

tions call for something more elaborate than a plain, white bowl and reflector.

The standard white bowl has been replaced in this unit by a bowl of similar



shape but decorated with a floral design in two colors, while the reflector is enclosed in ornamental metal scroll work, and finished to give the appearance of rusty iron, with touches of polychrome.

New Cleaner Features

Several new improvements feature the new vacuum cleaner recently announced by the Hurley Machine Company of Chicago, manufacturers of the well known line of Thor Home Laundry equipment. It will be manufactured under the trade name Hurley Thor No. 77 Electric Brush Type Cleaner.

One of the most remarkable features of the new Thor cleaner is this gear driven brush which eliminates entirely the use of rubber belts. Phosphor bronze and hardened steel gears and pinions with a tool steel driven shaft are employed. This mechanism is fully enclosed to exclude dust and grit, and the gear case is filled with grease, furnishing automatic lubrication similar to that employed in the differential housings of automobiles.

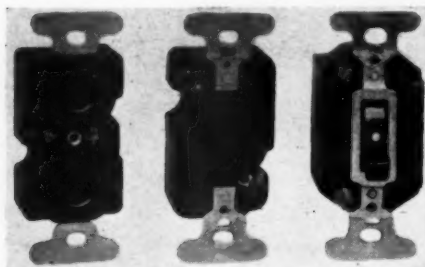
A friction cone clutch on the driving shaft permits the brush to remain stationary by the shifting of a small lever. Clogging of the brush will result in its being stopped while the motor is running, and when the obstruction is re-

moved it will automatically start again. The use of this clutch eliminate any danger of stripped gears.

An even more important feature with a strong appeal to housewives is the exclusive self adjusting nozzle. There is no necessity of making any adjustment at the back caster of the machine. This self adjusting nozzle is pivoted at the back and rides up and down on a short arc. This guarantees the most effective adjustment of the nozzle, and makes the powerful suction always 100 percent efficient.

New Convenience Outlets

A new line of standard 10-ampere, 250-volt convenience outlets made of compound and embodying the new feature of wide mounting ears have recently been placed on the market by the General Electric Company. The double



T-slot accommodates either standard caps with parallel blades or caps with blades in alignment.

Contacts are concealed behind narrow slots, preventing accidental shocks or short circuits, and a specially designed, one piece phosphor bronze spring is employed, insuring a substantial contact surface with the blade of the cap. The wide mounting ears, which are also a feature of the G-E porcelain and compound tumbler switches recently placed



Joe Busch, the Electrical Golfer of the Chicago Westinghouse Forces, Was Recently Made Secretary of the Western Golf Association. He is on the Extreme Right

on the market, assure positive alignment with the wall surface, and no adjustment is necessary.

These outlets are of one piece compound, are unusually substantial, and intended to withstand without damage the rough handling to which such devices are sometimes subjected.

Condensed Notes of Interest to the Trade

The General Electric Company has purchased at Los Angeles, five acres on which there is now located a two story reinforced concrete building which will immediately be modified and converted into a fully equipped service shop in which all kinds of electrical apparatus will be rebuilt and repaired. Later a large warehouse will be built on the property and eventually there will probably be a factory.

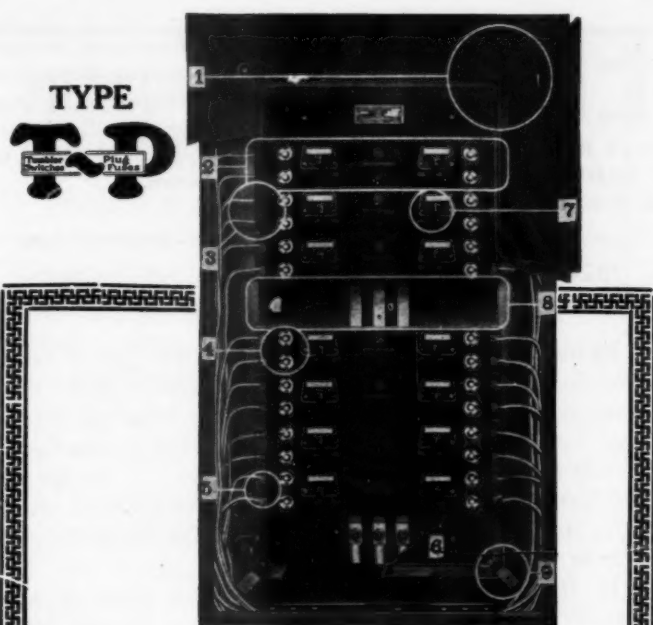
A complete assortment of its products will be continually maintained at the new warehouse opened by The Connecticut Electric Manufacturing Company of Bridgeport at 32 South Clinton Street, Chicago, in charge of L. G. Cushing.

"How 437 Dealers Brought Customers to Their Stores" is the title of an attractive 8½ by 12 inch booklet issued by the Altorfer Bros. Company of Peoria, Illinois. It tells how to increase washing machine sales and its halftone illustrations and record of business facts in the 20 pages included are particularly illuminating to electragists.

As of January 1 the offices of the Waage Electric Company, including the sales, purchasing and accounting departments, were moved from 12 South Jefferson Street, Chicago, to its new factory at 5100 North West Ravenswood Avenue, that city.

Harry J. Mc Devitt of New York City has been employed in the sales department of The United Electric Company, Canton, Ohio. This company also announces the appointment of the following district managers: L. D. Gaddis, state of Indiana; J. L. Shaw, central Pennsylvania; A. O. Engle, states of Colorado, New Mexico and Wyoming; and J. E. Foreman, Dayton, Ohio.

William Porter White has been appointed to act as personal assistant to M. O. Troy, new executive assistant manager of the central station department of the General Electric Company. His headquarters will probably be at Schenectady in common with Mr. Troy.



Not High Priced —Low Priced!

So many better features: higher quality, safety, standardized construction—all would indicate high price. But **Triumph Panelboards** are actually lower in cost than other panelboards that have neither the quality nor the safety features.

Standardization of the complete line has brought low cost with a type to fit every job: tumbler switch-plug type fuse; tumbler switch-cartridge type fuse; plug type fuse, one or two row construction; and a residence type, that comes complete in a package.

You can not make a mistake choosing **Panelboards**, whether you select for quality or for price. The whole story is told in the new **Panelboard** catalog that is now on the press. Write for your copy.

Frank Adam
ELECTRIC COMPANY
ST. LOUIS

District Offices:

Detroit, New York, Dallas,
Minneapolis, Kansas City,
Cincinnati, Cleveland,
New Orleans, Chicago,
San Francisco, Los Angeles,
Seattle, Boston, Pittsburgh,
Philadelphia.

Manufacturers of

Major System of Theatre
Lighting Control; Triumph
Line of Safety Type, Stand-
ardized Panel Boards and
Cabinets; knife switches;
safety switches; hanger out-
lets; reversible-cover floor
boxes; A. C. and D. C. Distri-
bution Switchboards.

"UNILETS"

REG. U.S. PAT. OFF.

Ask For "Unilets"

Just say "Unilets" if you want the best in electrical fittings. And when you ask for "Unilets" be sure you get "Unilets." "Unilets" are manufactured by the Appleton Electric Company alone, but their use is universal.

In Catalogue Nine, a copy of which will be sent upon request, you will find, listed and illustrated, a "Unilet" to meet every one of your wiring requirements. A pictorial index saves time and error in planning installations and assures the correct treatment of every wiring problem.

APPLETON ELECTRIC COMPANY

1704 Wellington Avenue,
CHICAGO

Write for this Catalogue No. 9-D.



APPLETON

ELECTRAGISTS USE THE PRODUCTS OF ADVERTISERS IN THE ELECTRAGIST

Radio Service was begun in June, 1922, as a supplement to The Electragist. It is now issued as part of the magazine.

RADIO SERVICE

All Communications Should Be Addressed to
THE ELECTRAGIST RADIO SERVICE
15 West 37th Street, New York City.

The Electragist, formerly Electrical Contractor, was established 22 years ago as the official journal of the National Association.

JANUARY, 1924

Druggist vs. Electragist

At the peak of demand for radio goods, when supplies were slow in coming along, the retailers of receivers were anything and everything. Drug stores, candy stores, five and ten cent stores, hardware stores, and the whole list of stores of all kinds could be included among the suppliers of the commodity, radio.

Many of these have given it up long ago and more are giving it up every day. Radio is a business that requires at least a working knowledge of electricity. When head sets were almost impossible to get, it did not take much of a salesman to sell head sets. The greatest problem was to get the head sets. Now, with ample supplies, many of the former order takers have retired.

The New York World publishes once a month the "World Retailer" devoted to the interests of retailers in the Metropolitan area. An editorial in one of the recent issues advises druggists to get into the radio business as a side line. The editorial goes on to say that little or no knowledge of the technical end of the business is required.

It is a pretty well known rule of salesmanship that a man cannot be successful selling an article about which he knows little or nothing. How can the druggist advise the prospective customer about the many points that are brought up in any sales talk? Can he speak with intelligence of the several popular circuits? We should be inclined to think not.

No amount of clamoring on the part of any class of individuals or any group of newspapers or magazines will materially change the trend of business, but the fact is that radio retailing is finding favor with the electragist and he is profiting from the sales of this sort of equipment to a greater extent than ever. And at the same time, the amount of retailing by outsiders to the electrical business is getting smaller.

Facts and Figures

Somehow or other we have taken a great delight the past month in scanning statistics. A lot of big people have been making estimates of various things, and the journals abroad have been doing some figuring too. Let's set down a few and study them. They mean something in a business way to us:

David Sarnoff of The Radio Corporation says that \$115,000,000 has already been spent by Americans for radio equipment this year. He says they will spend twice as much in 1924. At this rate the radio industry will soon bulk as large as the phonograph industry which is now running about \$400,000,000 a year. This is something tangible to make a comparison with.

Estimates of the number of receiving sets now in use in America range from 1,000,000 to 2,000,000. While there is no possible way of doing other than guessing, we feel that these estimates are too low, considering the number of aerials to be observed in any city or town. There are 12,000,000 automobiles registered in America and it would seem that radio receiving sets are running a pretty close race in point of numbers.

In Great Britain, where receiving sets have to have licenses, there are already half a million licenses issued and it has been estimated that over 200,000 sets are operating illegally without a license. Considering the earlier start that radio got away with over here, the greater facilities for owning sets and the lower prices, it seems inconceivable that we should have only about two and a half times as many receiving sets as England.

There are around half a thousand broadcasting stations and of this number there are some one hundred and fifty which can be classed as those sending out the most interesting material. On several occasions within the past year several of these stations have been hooked up by wires for the simultaneous broadcasting of some important event. It is probable that there will be considerable development along these lines in the near future.

These figures are interesting in that they give an idea of the size of the radio industry and the possibilities of making sales and making profits in the field. They should be substantial bludgeons to those who say that the radio industry got here in a hurry and is going out the same way.

Radio Down on the Farm

The Department of Agriculture, in a recent survey, found that there were over 40,000 radio receiving sets on farms in more than 700 counties. It has been estimated from this "sampling" survey, that there must be in the neighborhood of 145,000 sets on farms throughout the country. At the present time over 150 broadcasting stations are featuring weather, crop, market, grain and produce reports as well as broadcasting special farm programs.

The farmer is not alone interested in farm reports. He is a human being like anybody else and has pretty much the same kind of likes and dislikes. He likes music, and in about the same ratio as city folk, he likes some jazz and some of the highbrow music. All the other features of broadcasting programs appeal to him more or less.

Dealers who are selling to farmers will do well not to dwell exclusively on the farm report features of broadcasting or they will not sell a great many receiving sets. The farmer as a rule will buy a receiving set largely for the entertainment and other features that it will provide, and to a very small extent for the farm reports. He will want to get them, of course, but more as a side line.

MERCURY TIME SWITCHES ARE THE STANDARD OF EFFICIENCY

Many of the larger users of sign boards have standardized on Mercury Time Switches because of the small amount of servicing demanded and because they function well at small expense.

Utter simplicity of design and the Liquid Mercury contact eliminates all friction, arcing and corrosion.

The Switch is not geared to the clock movement, making all parts quickly accessible.

The electric dealer will find a big market for MERCURY TIME SWITCHES for use on retail store windows, electric sign, bulletin boards, factories and chicken coops.

WRITE FOR FREE TRIAL OFFER
AND SPECIAL PROPOSITION TO DEALERS

THE MERCURY TIME SWITCH CO.
103 W. Atwaters Street, Detroit, Michigan
Eastern Representatives.
MANUFACTURERS DISTRIBUTING CO.,
291 Broadway, New York, N. Y.



The Indications

Constantly Remind One

of the design and construction embodied in these instruments.

Every Norton ammeter and voltmeter has a movement of light rigid construction, balanced in the best selected sapphire jewel bearings.

All dials are calibrated and drawn by hand, thus assuring the utmost accuracy at every part of the scale.

Their durability is unequalled.

WRITE FOR LATEST BOOKLET

NORTON ELECTRICAL INSTRUMENT CO.

Manchester, Conn. U. S. A.

*(Builders of ammeters and voltmeters
for over a quarter of a century)*



An Armorclad Rheostat

Made for the UV199 tube and designed to completely eliminate comebacks from dissatisfied customers. Contains a 30 ohm resistance unit that

CAN'T BE HURT

One and a half inches in diameter and tough as a hickory nut. Invisible panel mounting.

Manufactured by

Martin-Copeland Company

PROVIDENCE, R. I.

"The House of Quality Radio Products"

DISTRIBUTOR  PRODUCTS

Start the
New Year
by using General
Electric Products
in all of your work.

Allow us to submit
our quotations
covering your re-
quirements.

**THE PHILADELPHIA ELECTRIC
COMPANY SUPPLY DEPT.**
130-132 South Eleventh Street
Philadelphia

ELECTRAGISTS USE THE PRODUCTS OF ADVERTISERS IN THE ELECTRAGIST

Locating Prospects For Radio Sales

Why Talking Plays Important Part in Annual Turnover
and How to Make Good on That Factor Explained Herein

Sales of any commodity, vacuum cleaners, automobiles, electric irons or radio apparatus, are made by talking to prospects. This is the age of competitive selling and the number of sales made by people voluntarily walking into a store, picking out what they want and paying for it are exceedingly rare.

The salesman may be on the outside ringing the door bells or he may be behind the counter, but wherever he is, it is his business to see and to talk to as many prospective buyers as time will allow. All the time he is traveling from one place to another or looking out of the window is wasted time, in a sense. The real productive time is that actually spent face to face with the prospect, talking to him, answering questions and demonstrating the goods.

There is a certain definite percentage of prospects that can be sold. The percentage may vary with the individual salesman, it may vary with the locality, or it may vary according to the class and kind of commodity being sold. But the percentage is more or less fixed over a period of time. If Jones is able to make sales in twenty percent of the interviews he has, if he is able to see one hundred customers in a week, he will make sales to about twenty of them. If he were able to see two hundred instead of one hundred, he would make forty sales instead of twenty.

Secure More and More Prospects

Modern merchandising is predicated on the basis of securing more and more prospects. This is done in a number of different ways. A large department store in a large city advertises its wares in the daily newspapers. It has attractive window displays. It has attractive counters and interior displays and it uses all sorts of methods to induce customers to come into the store.

Particular attention is paid to getting the customers into the store. High salaries are paid to window dressers, to store managers and to advertising copy writers. Object, more prospects.

The smaller store in the moderate size community can be a little more personal in its efforts to secure customers. It can to a limited extent make use of newspaper advertising and window display. But it can also write letters, send out circulars and make per-

sonal solicitations either by telephone or by calling. It is this personal touch that can be put to great use in the selling of radio apparatus.

A plan of securing prospects to be successful must be quite comprehensive. It must look forward to the whole of 1924, not merely the next week or two. Plans can be laid now to secure prospects and follow them up right through to next Christmas.

How to Get Up a Prospect List

Every store that has anything to sell should have a prospect list. The most

Name
Address
Telephone Date.....
Has a set?..... Make..... Type..... Price.....
Wrote..... Phoned..... Called.....
Remarks
.....
.....
.....

For Prospect Cards 3" x 5" or Made Into
a Rubber Stamp

productive list would be a list of present and past customers of the store. Many stores have the names and addresses of all their customers, but others have failed to collect this very valuable information. It may take a little time to collect it, but it will be worth while. Here are a few methods:

1—If you use a sales register of some kind on which to record the sales transactions, ask for the name and address of each customer as the sale is made. The names can be sorted out and classified in a number of different ways.

2—Have some blank cards near the cash register and as each sale is made request the customer to write down his or her name and address so that you can mail a catalog, circular or something or other that will at least be acceptable to the customer.

3—Maintain some kind of sales policy of satisfaction to the customer, and have a tag with a coupon, the coupon to be filled in by the customer and

returned to you as the sale is made. The tag containing the printed policy is attached to the article.

These three methods are for use only in securing the names and addresses of present customers. But the store that desires to push ahead must forge out and get new customers, and here are a few methods that have proved practical:

Turning Them Into Buyers

1—Make up a prospect list from the telephone directory. Almost everybody that could afford to purchase a radio receiver set has a telephone. In a large city where there are a great number of telephone subscribers, this will be a large job, but the names can be selected according to locality. Business houses would naturally be eliminated as the list should be one of individuals. In a small town the problem is more simple and a few nights' work should produce a good list to work from.

2—Lists can be purchased from any one of a number of listing companies. These lists come in a great variety of forms, including doctors, lawyers, automobile owners, etc. Any listing company will furnish a catalog showing the character of the lists, the number of names on each list, and the price.

3—The local newspaper, especially in the smaller towns, can be depended on to supply a good deal of information in getting up a list. Personals, social news and gossips, etc., can be used to secure names, and if the addresses are not given, the telephone book will usually supply them.

4—Advertise in the local newspaper that you have something to give away to those who will call for it. The article may be a catalog, a pair of binding posts, a list of broadcast stations, or anything at all that seems attractive. Those who call are asked to sign a card giving their names and addresses.

How to Use a Prospect List

It costs a little something to get up a list, either in time or in money, but the right sort of use of the list will make the investment well worth while.

A prospect list is used in three ways:

1—To send circular letters, catalogs, and printed matter.

Rubber Insulated Wires and Cables



National Electrical Code Standard
Intermediate (Red) Thirty Per Cent

Wire built under the direct supervision of experienced engineers, skillfully and honestly manufactured with one purpose and result.

Continuous Service

A-A WIRE CO., Inc.

FACTORY: NEWARK, N. J.

Sales Offices: 50 East 42nd Street,
New York City



SCHWARZE

MONITOR

D. C. and A. C.

Vibrating Cyclone Bell

WEATHER PROOF

Type No. 62 For Direct Current

Type No. 72 For Alternating Current

FURNISHED WITH 8-INCH GONG ONLY

For operation on 250 volts or less Alternating and Direct Current.

Has all terminals and current-carrying parts heavily insulated from frame and securely inclosed in metal case. For multiple operation only.

Always Give Voltage of Circuit When Ordering.

WRITE FOR PRICES AND BULLETIN

Manufactured by

SCHWARZE ELECTRIC CO.

ADRIAN,

MICHIGAN

PARANITE

RUBBER COVERED WIRES AND CABLES

The Standard for THIRTY-THREE Years



For all purposes. Inside, Outside, Aerial,
Underground and Submarine Use.

IF IT'S **PARANITE** IT'S RIGHT

INDIANA RUBBER & INSULATED WIRE CO.
JONESBORO, INDIANA

New York Representatives:

The Thomas & Betts Co.,
63 Vesey St., New York City

Chicago Branch:

Indiana Rubber & Insulated Wire Co.
210 Marquette Bldg., Chicago.

Knu Canopy Insulator



Approved by Underwriters' Laboratories

Can be applied to canopy without the
use of tools

in rolls of 10 feet.

ARTHUR F. STANLEY

SELLING AGENT

West & Hubert Sts.

New York

Telephone 5200 Canal

ELECTRAGISTS USE THE PRODUCTS OF ADVERTISERS IN THE ELECTRAGIST

2—To solicit business over the telephone.

3—To solicit business by personal call.

To keep the list constantly up to date and to know where you are going, you should have a prospect card like the one shown here for each name on the list. As the list is used more and more, the names that have responded in sales begin to show up more and more.

By means of "flags" or little metal signals on the cards, the live prospects can be sorted out quickly from the others for use in soliciting business by telephone or in person.

The listing of prospects and keeping the list up entails some little work, but it pays because it increases the number of people that are brought into the store.

Radio on Mail Planes

Steps are under way, at the instigation of the Post Office Department at Washington, to supply the government mail planes with voices and ears. The equipping of many of these planes with radio sending and receiving sets is expected to follow the completion of experiments which are now in progress.

The advantages are obvious when it is realized that in time of heavy fog or severe snow storms, especially at night, a pilot might stray out of his course and find difficulty in locating his next landing station, even though aided by the powerful electric beacon lights which have been set up along the route. If the pilots and the landing stations can talk to each other, the pilot can be accurately directed from the ground, and thus always find his bearings.

There are also times when a plane has to make an unexpected landing, or when it is desirable to report to the landing field the presence of unusual

atmospheric conditions. It has happened several times that air mail pilots have been forced to land at remote and isolated spots in the Rocky Mountains. When this occurs, with a radio outfit installed the pilot can immediately call for assistance, instead of waiting hours and perhaps days for a searching party to find him. It is also an advantage to be able to transmit instructions to the pilot between stations, should occasion arise.

For all these purposes, as well as others, radio equipment on the mail planes will be invaluable, in the opinion of the department.

The feasibility of using radio sets, both transmitting and receiving, on the type of plane employed in the air mail service has been fully established by preliminary tests recently completed at Schenectady, N. Y. These tests, with a de Havilland mail plane, took place under the direction of radio engineers of the General Electric Company.

The radio equipment used in the tests was especially developed by the General Electric Company's radio department, in cooperation with C. F. Egge, general superintendent of the air mail service, and Eugene Sibley, radio traffic supervisor. It is held to be, without question, a big step forward in the commercialization of airplane radio.

Powerful and highly efficient, the equipment is at the same time so simple that anyone can operate it successfully after brief instruction. In the Schenectady tests the pilot was unfamiliar with radio apparatus, yet on every trial flight the operation was entirely successful.

Mail airplanes carry only one man, the pilot, in order to conserve space for the "paying load," i. e., the mail. This means that the pilot must operate the radio equipment in addition to his

duties in flying. Consequently the equipment must be practically as easy to operate as an ordinary telephone. That this requirement has been fairly well met was demonstrated by the tests at Schenectady.

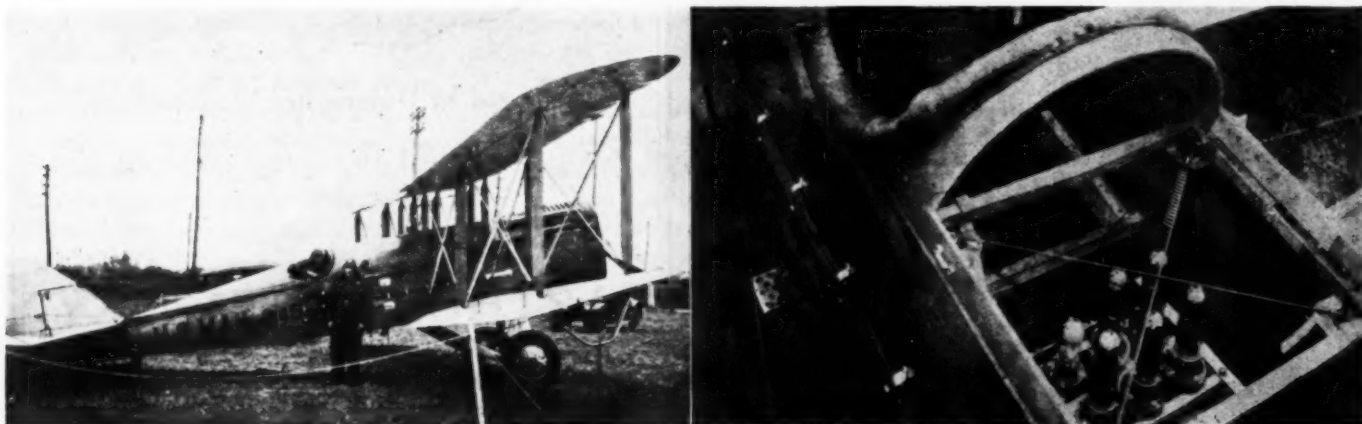
The pilot, in order to talk, merely throws the switch handle, conveniently mounted under his seat, to the transmit position and turns a large knob—the antenna variometer—until the ammeter mounted on the board in front of him shows a maximum reading. That is the whole process of tuning the transmitter. After he has done that once, he locks the knob in position, and it is only necessary to throw the handle from "transmit" to "receive," as desired.

The Chief Speaks

Twice within a month the voice of the President of the United States has been heard over the radio. A new milestone in radio was passed when the President's message to Congress was transmitted in such a way that practically every receiving set in the United States could pick it up. Again, on December 10, President Coolidge delivered an eulogy to Warren G. Harding. In both these cases, a number of broadcast stations were wired so that simultaneous broadcasting took place from a number of different points. The stations participating were New York, Washington, Providence, Kansas City, St. Louis, Dallas, Chicago and Philadelphia.

Collapsible Indoor Aerial

An indoor aerial of novel design, manufactured by the Pathe Phonograph Company, Brooklyn, N. Y., is being placed on the market by the Peerless Light Company, 663-671 West Washington Boulevard, Chicago. It is made in the form of a roller skate, the turns



These Views Show One of the Mail Planes and a Portion of Its Radio Apparatus Which is Used Both for Sending and Receiving

"CENTRAL" RIGID STEEL CONDUIT

ELECTRAGISTS can order this guaranteed conduit with an assurance that they are dealing with a concern that has a policy that makes and keeps friends.



This shows a piece of one-half inch "Central Black" wound around three inch pipe. There is no flattening or buckling of the conduit and the enamel has not cracked or flaked off under this severe test.

"Central White"-----galvanized

"Central Black"-----enameled

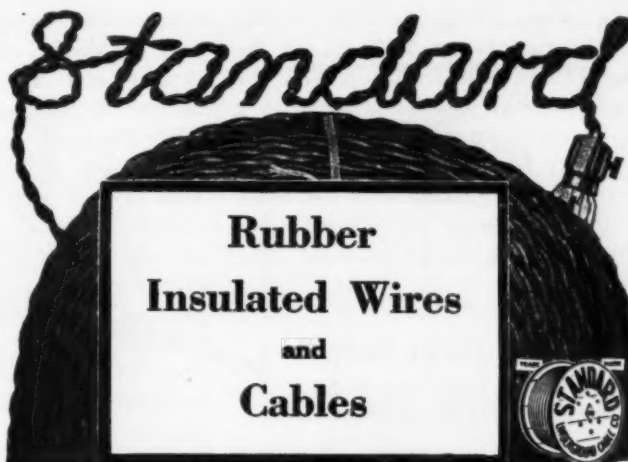
CENTRAL TUBE CO.
PITTSBURGH, PA.



Insulated wire and cable for every transmission purpose—not made to meet a price, but with the idea of rendering maximum service to the purchaser and of reflecting maximum credit to the contractor who uses it.

**Safety Insulated
Wire and Cable Co.**

114 Liberty Street
NEW YORK



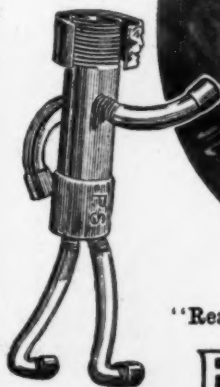
include a wide variety of types to meet every condition of service. These types include, in addition to wire for ordinary interior wiring, a complete line of special make-ups such as Brewery Cord, Theatre Cable, Elevator Cable, Tree Wire, etc.

For complete information write our nearest office for Bulletin 500.

STANDARD UNDERGROUND CABLE CO.

Boston Washington Atlanta Philadelphia Los Angeles Seattle
Chicago Kansas City New York Detroit
Pittsburgh San Francisco St. Louis Salt Lake City
For Canada: Standard Underground Cable Co. of Canada, Limited,
Hamilton, Ont.

PITTSBURGH
THREAD PROTECTED
ENAMELED CONDUIT
STANDARD
PATENTED



"Reaches the job ready to install."

**ENAMELED
PITTSBURGH PA.
METALS CO.**

of the aerial being mounted on the flexible material that rolls up on the spring roller. The roller is held by a bracket which may be attached to a wall or any convenient place at one end only. When closed the aerial is as portable as a walking stick and when opened it is a large and efficient loop. The size can be varied at will. The price is \$8.50.

Government Help

Crosley Weekly Tells How Federal Authorities Solve Radio Problems

Unknown to most radio experimenters and workers, government bureaus have prepared many treatises on every phase of radio, some of them presented in terms understood by the layman, while others discuss subjects of interest only to the laboratory man. These publications range all the way from a small leaflet of two or four pages to a substantially bound book of over 600 pages. Without exception these treatises are available to the radio public at extremely low cost.

Perhaps the book of greatest value is called "Principles Underlying Radio Communication," written originally as a text book for the Signal Corps, but now on sale by the Superintendent of Documents for \$1. This is a 600 page book. It is well bound in imitation leather and contains hundreds if not thousands of accurate illustrations to illuminate the text.

Commencing with the elementary units the reader is taken through the preliminary explanations until the theory and operation of the vacuum tube is reached. Here the facts are sufficiently explicit for any one unless he prefers to delve into higher mathematics. A careful study of the pages devoted to tubes, their actions as detector and amplifiers, cannot fail to clear up many of the problems of the receiver set owner.

The latter part of the volume takes up the diverse application of radio to commercial and government pursuits, yet even here the information is well worth having at hand.

Considering its scope, its cost and its general excellence no radio library is complete without this book. Practically any perplexing trouble in a receiving set can be solved from the knowledge imparted by this book.

But there are numbers of fans who do not care for even the elementary technical material. For these the government has prepared three publica-

tions which supply explicit instructions for building and operating simple crystal and vacuum tube receivers. Bureau of Standards circulars 120 and 121 refer to the construction of simple crystal sets and to a two circuit tuner with crystal detector. Circular 133 is slightly more advanced, describing the making of an electron tube detector unit for use with simple tuning apparatus. The receiving set made from this last circular is an efficient one and should bring in local and long distance stations to the satisfaction of the beginner.

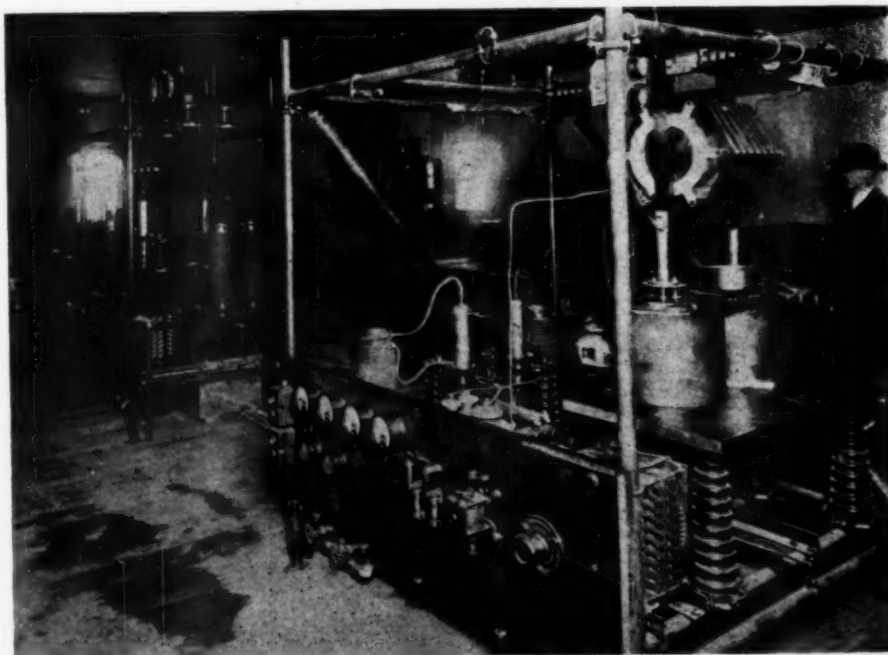
Radio fans who have felt the need of a list of broadcasting stations throughout the country will find such a list in the government publication, entitled "Commercial and Government Radio Stations of the United States." The cost is but 15 cents, and while the list may not be up to date within a few months, the increase in the number of broadcasting stations is so slight that for all ordinary usage the booklet is worth the price. If this book is purchased and at the same time a subscription sent to the government for the Radio Service Bulletin the amateur will be able to maintain his own list correctly. All additions are included in the monthly bulletin. The subscription of the latter publication is but 25 cents yearly.

The laboratory worker has not been forgotten in the literary labors of the experts in the Signal Corps and Bureau

of Standards. To those who have followed the development of radio from the beginning these circulars, leaflets and booklets will prove of great importance. For instance there is "Amplifiers and Heterodynes," "Electron Tube Amplifier Using House Lighting for the Filament and Plate," "Radio Frequency Amplifiers" and "Wave Meters and Decimeters" and a score of others among which "Radio Instruments and Measurements" must not be omitted. This last named book is a volume of some hundred or more pages in which the action of various radio instruments is explained, both mathematically and graphically.

It is not possible here to present all the facts concerning each publication. A printed sheet may be secured without charge from the Superintendent of Documents which gives the name, number and cost of each publication. Every radio library should contain this slip at least and, if possible, a file of the treatises which apply to the particular work being undertaken by the amateur. In no way and at no such small cost can the radio man secure an equal amount of authoritative information as through the publications prepared by his own government.

The largest radio horn ever built is said to be at Idora Park, a public amusement place in California. It is 35 feet long and has an opening 12 feet square.



Transmitting Apparatus at Station KFKX, Hastings, Nebraska, a Relaying Station to Serve as a Connecting Link Between Pittsburgh and the Pacific Coast. Broadcast Material Sent Out From KDKA is Retransmitted



The
**Westinghouse
SOL-LUX**



Brings Profitable Lighting Contracts

because it meets every commercial lighting need in the easiest and most economical way.

When you approach a prospect with a new Sol-Lux, you offer a beautiful luminaire of unusually high lighting efficiency. This luminaire can be adapted to meet every commercial lighting requirement in stores, offices, banks, hotels, restaurants, schools or libraries.

Show the prospect how the use of decorative shades allows an endless variety of lighting effects. Think what this means to a department store, for instance, where different sections require different lighting applications—all of which are obtainable from one standard unit.

The high illuminating efficiency is maintained for a long period, with only an occasional wiping of the outside of the dust-proof globe. Explain how the lamp can be removed and replaced without disturbing the globe.

Catalogue 40-B tells all about it. Write our nearest jobber for your copy.

Westinghouse Electric & Mfg. Co.
George Cutter Works, South Bend, Indiana

Sales Offices in all Principal Cities of the
United States and Foreign Countries.



Westinghouse

ELECTRAGISTS USE THE PRODUCTS OF ADVERTISERS IN THE ELECTRAGIST

Which Type

TO HELP YOU in solving problems of Motor Application the Westinghouse Company is devoting these two pages of suggestions for your guidance in selecting the proper Motor for every job.

When the power is alternating current, know the voltage, phase, and frequency; when it is direct current know the voltage.

1. Will the motor drive line shafting? Through what means will it deliver its driving power?

Constant speed motors are used to drive two or more machines through line shafting. Either constant or varying speed types are used where the motor directly drives individual machines. These motors may deliver their power through belts, chains, gears, or they may be direct connected. In the last case, the speed of the driver and the driven will have to be the same. Chains and belts can be used for all ordinary motor applications, with the exception of a series wound d.-c. motor, because either the breaking of a chain or the slipping off of a belt would allow this type of motor to speed up beyond its safe limit, resulting in a badly damaged or completely wrecked motor.

2. Will the load be heaviest as the motor starts?

Pumps, compressors, and line shafting which drive machines directly through belts or chains place the heaviest load on the motor as it starts. For a contemplated operation of this kind, remove the main power belt, and lash a plank or crowbar to the main pulley at a right angle with the shaft and at a specific distance, say eight feet, measured horizontally from the shaft. Then gradually add weight until the shaft slowly begins to turn. Repeat this last operation a few times to make certain

that the results are correct. If, for example, the weight required to move the bar is 25 pounds, then $8 \text{ (dist.)} \times 25 \text{ (wt.)} = 200 \text{ foot pounds}$, which is the starting effort or torque required of the motor at the start. This, together with the full load horse power, usually furnished by the machine manufacturer, gives you (the dealer) exceptionally helpful information in solving your problem of applying motors for a specified speed, voltage, phase, and frequency.

3. Will the motor operate on a definite working cycle or is continuous operation at a fairly uniform speed desired?

An application may require a motor to operate for an hour and then to stop for a similar period, and so on throughout the working day. In this case, it is possible to supply a motor rated for intermittent duty. On the other hand, the application may require constant operation for at least three hours, thereby calling for the use of a continuously rated motor. It is often possible to use a smaller motor of the same horse power for intermittent duty than the same load would require in a continuously rated motor, thereby permitting you to make a lower bid when advisable.

4. Will the motor be subject to peak loads?

A motor has a constant load for most of the time, but for periods of one-half hour of frequent operations it may be expected to operate above its normal rating. Find out, therefore, before installing the motor, and from some one in the cus-

Westinghouse

ELECTRAGISTS USE THE PRODUCTS OF ADVERTISERS IN THE ELECTRAGIST

Motor?



tomer's organization, the heaviest load the motor will carry, and the time it will have to carry it. Be sure then that the work required of the motor you are applying is well within its capacity.

5. Is a fly wheel to be used with the motor?

Fly wheels are necessary for some types of machinery. The fly wheel effect should be taken into consideration when selecting the proper motor. Obtain, therefore, the approximate weight of the fly wheel, either by weighing it or by writing to the manufacturer of the machine, and then measure from the center of the shaft to the approximate center of the mass of iron in the rim. Multiply this distance by itself and then multiply by the weight, which is, approximately, the moment of inertia. This information together with the answers to the other questions, when forwarded to your nearest jobber, will avoid considerable delay in your receiving the necessary information for selecting the proper motor.

6. Will the motor be subject to unusual atmospheric conditions? Will it be placed in damp, dusty, or poorly ventilated locations? Are there any other unusual characteristics about the application?

Where there is danger from salt water, acid

fumes entering the motor, the windings must undergo special treatment.

Where there is danger from dripping water, the motor must be equipped with splash proof brackets.

Where excessive dust is encountered, the motor should be made dust proof, and where the dust is inflammable, squirrel cage (3 phase induction) motor should be used.

All Westinghouse motors have adequate ventilation and if it is absolutely necessary to install one in a poorly ventilated location, the motor should be carefully watched, frequently oiled, and stopped whenever it carries no load.

These questions and answers will be useful to you in selecting the proper motor for every job. Then if you doubt your own judgment or if you encounter a puzzling special application, send your answers to these questions to your nearest jobber or Westinghouse representative who will confirm them and help you select the proper motor.

Westinghouse Electric & Manufacturing Company
MERCHANDISING SECTION, EAST PITTSBURGH, PA.

Sales Offices in all the Principal Cities of
the United States and Foreign Countries.

Westinghouse

ELECTRAGISTS USE THE PRODUCTS OF ADVERTISERS IN THE ELECTRAGIST

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NEXT ANNUAL CONVENTION, WEST BADEN SPRINGS, INDIANA, WEEK OF SEPTEMBER 29, 1924

INSURANCE AT COST

Liability and Automobile

In 1915 the Insurance Committee of the A.E.I. investigated and recommended this insurance organization to the membership of the Association.

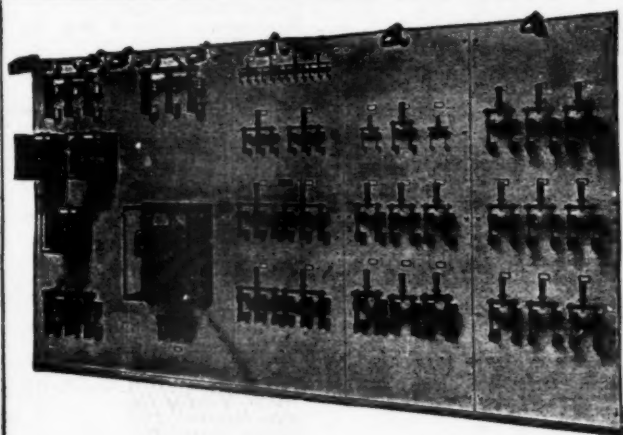
All through the eight years that have passed since 1915 the relations thus established have been closely maintained until Lynton T. Block & Company is known to every Electragist.

The advantages, both in Protection, Service and Savings, that are afforded through the Merit Saving Plan of Insurance are well worth consideration by every member, as they have the unqualified endorsement of the Insurance Committee of the A.E.I. year after year.

Remember, this is one of the benefits of membership.
For complete information address

LYNTON T. BLOCK & CO.,

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WV WURDACK WV
SWITCHBOARDS
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STEEL CABINETS
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LET US
FIGURE
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WM. WURDACK
ELECTRIC MFG. COMPANY
ST. LOUIS, MO.



Fast and Cheap. Costs 10c
plus 5 minutes' time to in-
stall box.

JOB BERS!

Eventually you will add this staple, fast selling article to your stock as the contractors will not be without these time and money saving strips. No doubt many of your customers are using them now. Have your salesmen investigate and see if this is not true.

CONTRACTORS AND DEALERS!

Kruse Strips are made of sheet metal, so they may be cut the desired length with your snips. Made 18" long. A hammer, four nails and three minutes' time is all you need to install a box or a gang of them.

NEW LOW PRICE MADE
JULY 17TH



THE OLD WAY
Slow and Expensive. Costs
50c to 75c to install box.

10¢
plus
5
minutes

A card will bring a
sample set, or \$1.00
will bring twelve
(12) sets by prepaid
parcel post.

**MIDWEST
METAL
PRODUCTS
COMPANY**

Munice, Indiana

We Manufacture:—

Rubber Covered Wire—Solid Conductor,
Stranded Conductor, Flexible Conductor.
Extra Flexible Conductor.

Lamp Cords, Reinforced Cords, Heater
Cord, Brewery Cord, Canvasite Cord, Packing-
house Cord.

Deck Cable, Stage Cable, Border Light
Cable, Flexible Armored Cable.

Elevator Lighting Cable, Elevator Operating
Cable, Elevator Annunciator Cable.

Switchboard Cables, Telephone Wire,
Flameproof Wires and Cables, Railway Signal
Wires, High Voltage Wires and Cables.

Automobile Ignition Cables, Automobile
Lighting Cables, Automobile Starting Cables,
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Dorchester District
Boston, Mass.

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Hamilton, Ont.

ELECTRAGISTS USE THE PRODUCTS OF ADVERTISERS IN THE ELECTRAGIST

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of some of the products manufactured by the concerns advertising in this issue. To be listed here is a badge of reliability. To buy from here is a guarantee of satisfaction. When you buy from here please mention

THE ELECTRAGIST

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Conn. Elec. Mfg. Co.
General Electric Co.
Hubbell, Inc., Harvey

ALARMS, BURGLAR, FIRE

Conn. Telephone & Elec. Co.
Ostrander & Co.
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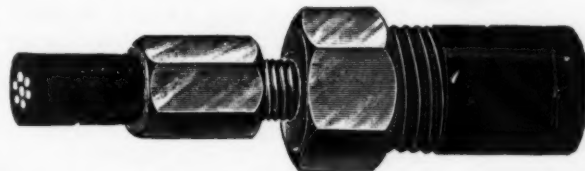
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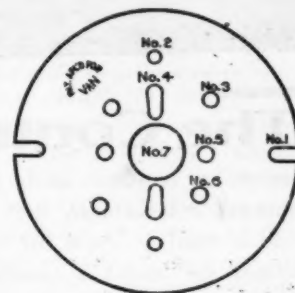
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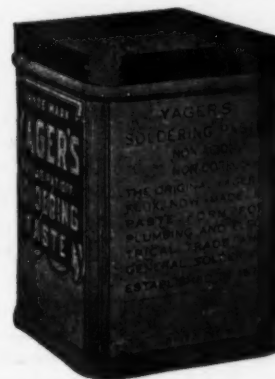
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A Message From a Prominent Electragist and Charter Member of the S. E. D. to Fellow Contractors Throughout the Country

MR. C. C. BOHN, President of the C. C. Bohn Electric Co., of New York City, (a live-wire contractor with an up-to-date electrical shop where a wide range of electrical appliances are sold) made the following statement when asked if he believed his membership in the Society had benefited him:

"I believe most heartily in the value of the work the Society for Electrical Development is doing to promote better business for all branches of the electrical industry and for the electrical contractor and dealer in particular.

"It must be confessed that I was early sold on the aims and ideals of co-operative effort and development of the common market in the electrical industry, and it has been my good fortune to have benefited to a gratifying degree by the consistent and valuable stream of business-building ideas, advertising material, etc., which the S. E. D. has been sending me all these years.

"I know that any Electragist will benefit to the same degree as I, if he joins hands with this neutral organization whose sole purpose is the betterment of business in our great industry."

Mr. Bohn, a prominent and active Electragist, recently celebrated his thirtieth year in the electrical industry and it is interesting to note that he has been a member of the S. E. D. since its inception.



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—FILL OUT THIS COUPON AND SEND IT TO US TODAY!—

Association of the Electragists, (International)
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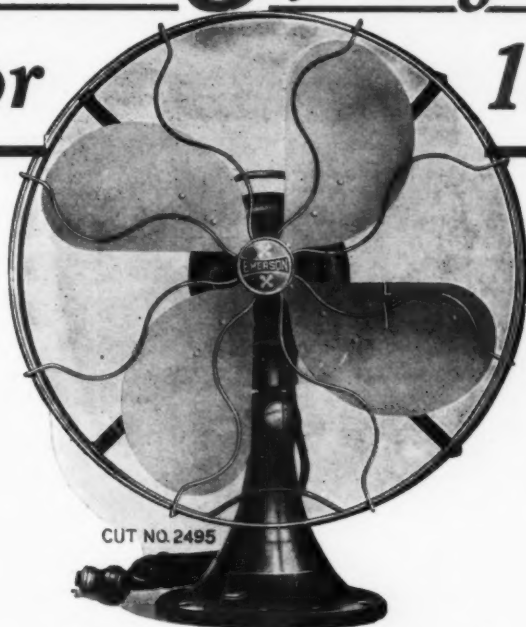
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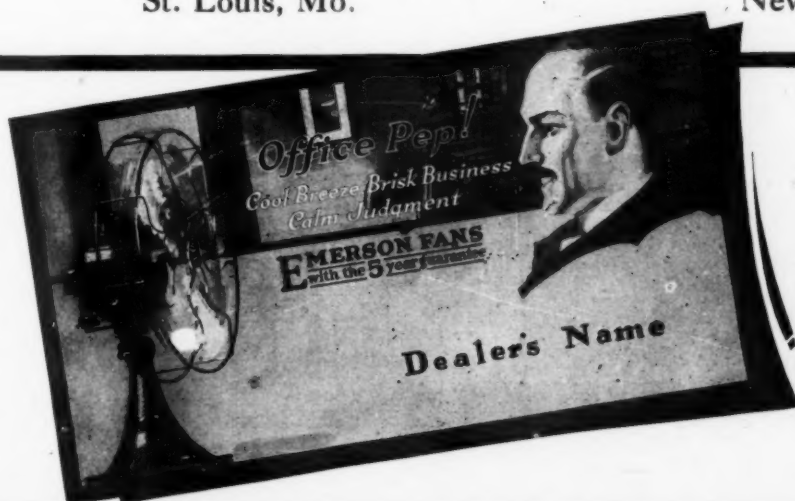
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